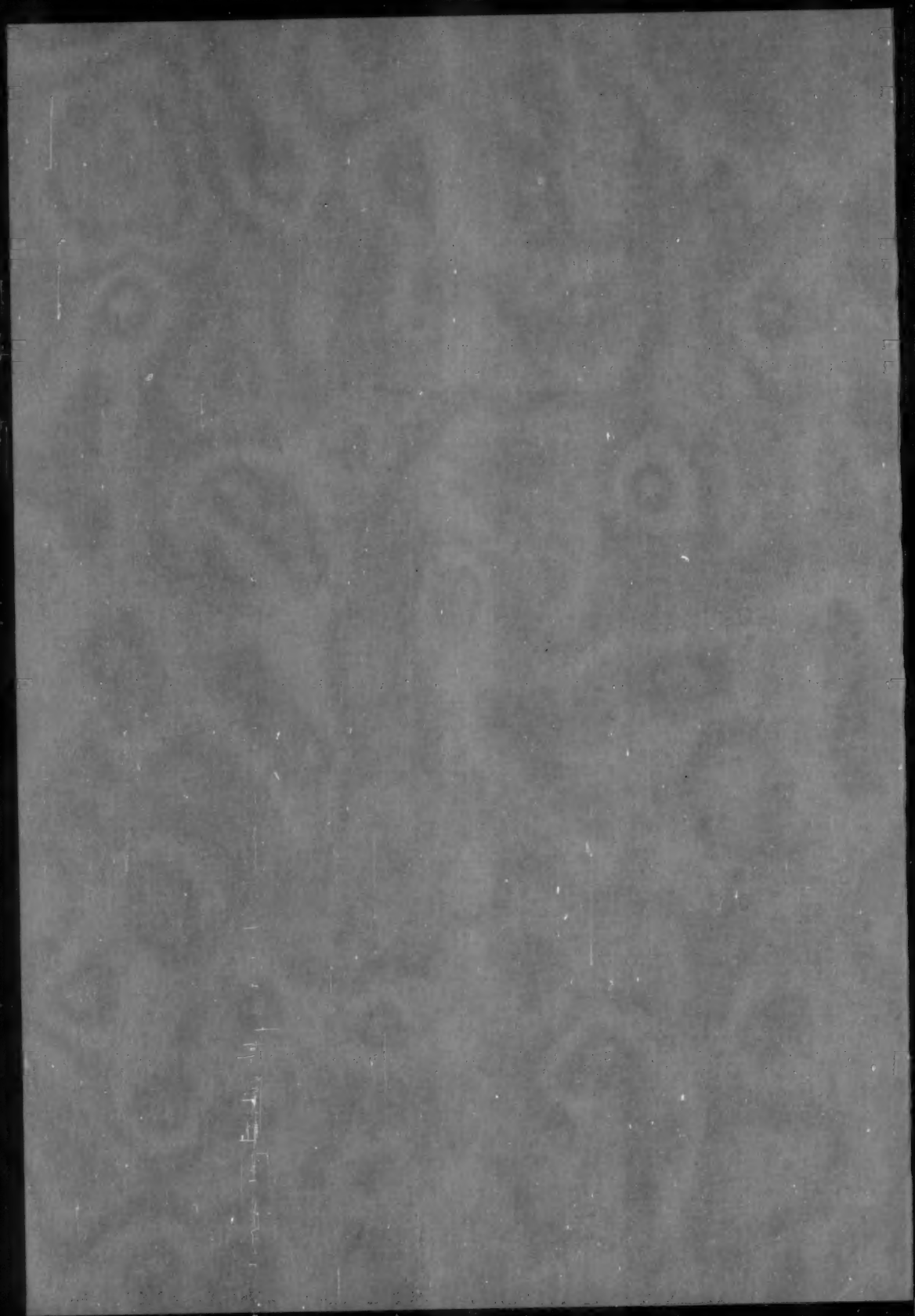


# **THE AMERICAN JOURNAL *of* PSYCHIATRY**

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May 9-13, 1955**

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**THE AMERICAN  
PSYCHIATRIC  
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# THE AMERICAN JOURNAL OF PSYCHIATRY

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No. 9

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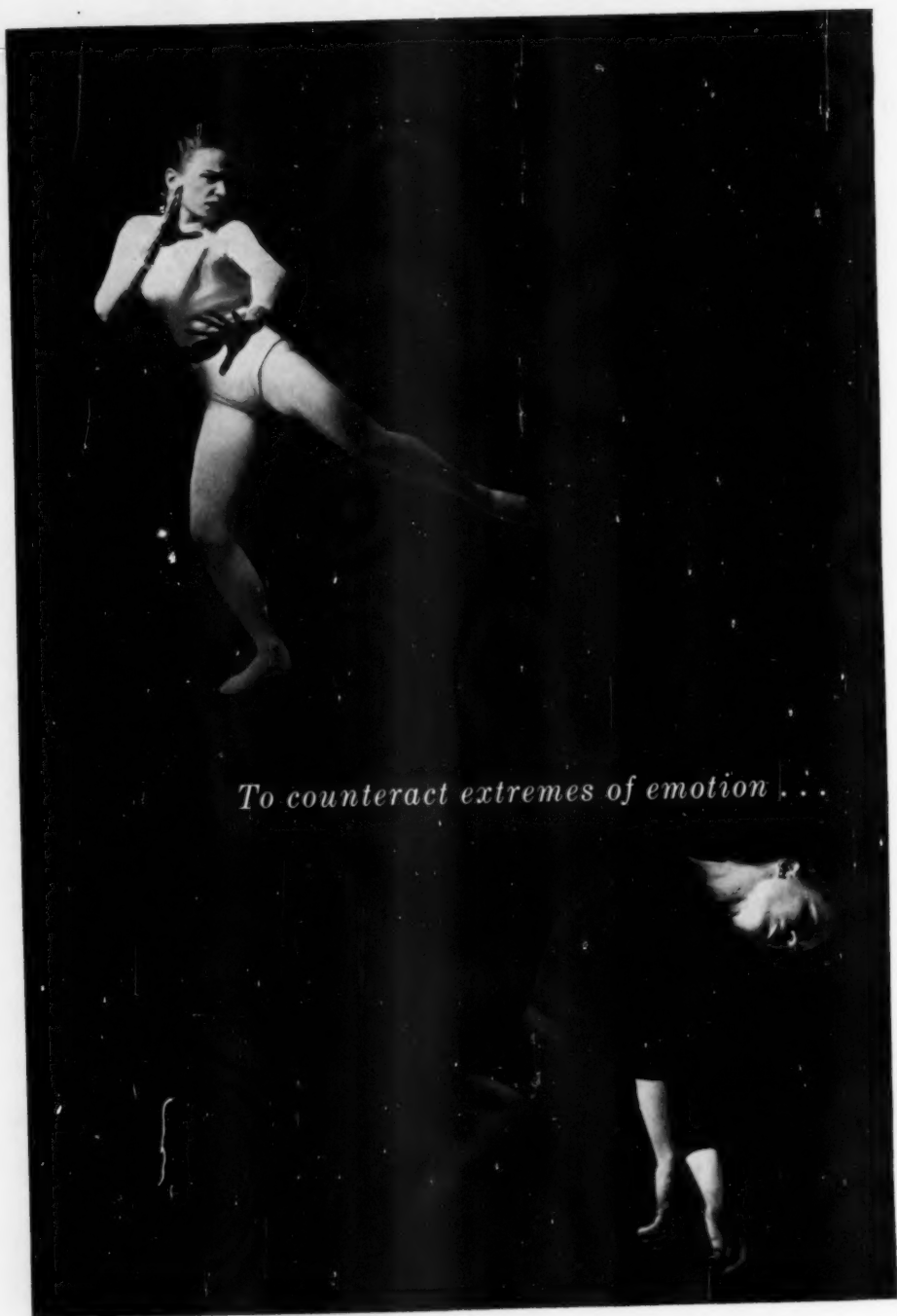
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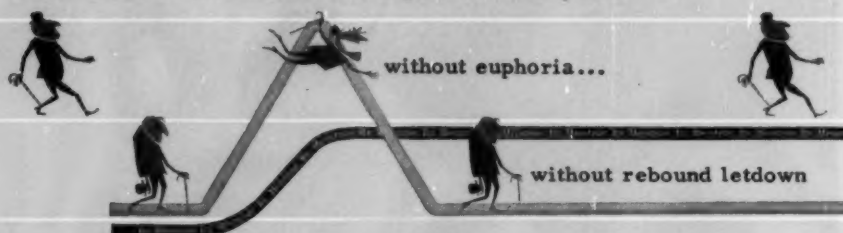
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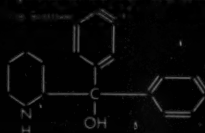
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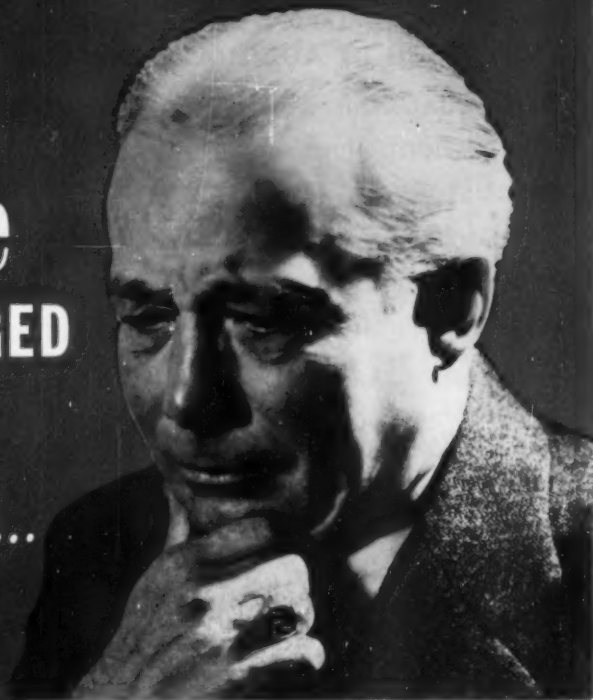


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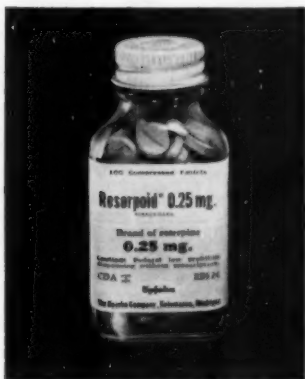
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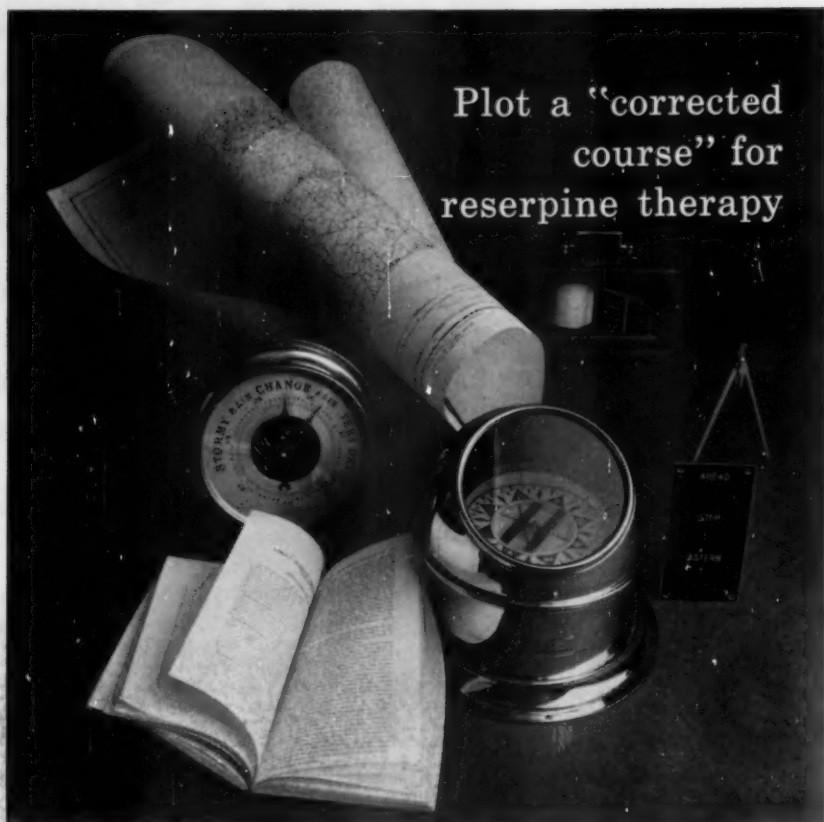
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## LETTER FROM AUSTRALIA

W. S. DAWSON, M.D., F. R. C. P., F. R. A. C. P.<sup>1</sup>

SYDNEY, AUSTRALIA

In order to appreciate psychiatric services in Australia it is important to bear in mind that in a sea-girt continent of some 3 million square miles, a population of nearly 9 million persons is settled mainly in a 400-mile-deep fringe along the eastern, southeastern, and southwestern coasts, and that half of this population lives in the capital cities and larger towns. Sydney and Melbourne together with nearby towns contain a population of over 3 millions. Each of the 6 states has its own Department of Mental Hygiene administering its institutions under Lunacy Laws which differ from state to state.

*Mental Hospitals.*—A building was assigned by Governor Macquarie for the care of the mentally deranged in the outskirts of Sydney in 1811, and was thus the first asylum in Australia. Special hospitals were built later in the last century according to the solid prison-like patterns which were in favour in Great Britain at that time, but newer buildings and additions have been constructed in a more open style, in keeping with modern ideas and more suited to a kinder, sunny climate. One or two of the State departments have separate hospitals for voluntary patients, Broughton Hall in Sydney being the first established in Australia (1921), and the largest, with 200 beds. A long-considered scheme to add a modern diagnostic unit and a special section for children to this hospital seems nearer fulfilment now that lobotomies and other physical methods of treatment call for more elaborate, especially neurological, methods of investigation. Some of the larger general hospitals, most of which have psychiatrists on their visiting honorary staffs, provide a few beds for voluntary patients. The neuropsychiatric pavilion at the Royal Prince Alfred Hospital, one floor of which is occupied by the department of neurosurgery with 20 beds, has 30 beds for psychiatric cases, and was opened in 1938.

Private voluntary psychiatric patients are

<sup>1</sup> Sometime Professor of Psychiatry in the University of Sydney.

treated in small nursing homes or in the private sections of the larger general hospitals. In Australia only a couple of hospitals correspond to the private or licensed institutions in England or to the sanatoria in the United States, authorised to take both committed and voluntary patients and with resident medical staff.

The Commonwealth Department of Repatriation cares for psychiatric casualties among serving personnel and veterans in its own general hospitals and outpatient departments in the capital cities but committed cases are handed over to state mental hygiene departments and are treated usually in a special "returned soldier" section of a mental hospital.

The mental hospitals in Australia contain 27,400 beds, staffed by 128 whole-time medical officers and 4,600 nurses and attendants. Although the staff position has improved since 1947, it is still (especially as regards nurses) below the authorised establishments, and of course below what is generally regarded as adequate. In New South Wales a few visiting medical practitioners relieve the resident psychiatrists of certain routine duties such as carrying out periodic physical examinations in the chronic sections.

Various denominational and charitable organisations have colonies and hostels for mentally backward children, alcoholics, senile and other special classes of psychiatric cases which do not come within the ambit of the State departments for mental hygiene. Satisfactory, and one might even add, humane provision for aging mental patients is a serious problem in Australia as elsewhere. The numbers of patients over 60 admitted to mental hospitals have increased greatly during recent years.

*Psychiatry and Medical Training.*—There are medical schools in 4 of Australia's 10 universities. A faculty of medicine was established in Melbourne in 1862, in Sydney in 1883, in Adelaide in 1885, and in the University of Queensland in 1936.

A lecturer in psychiatry was appointed first of all in Sydney in 1886. Medical stu-

dents are required to attend lectures in psychology and psychiatry (25 in Sydney) and also demonstrations and outpatient services. Not all the universities require the student to sit for a written paper in psychiatry but at least some form of oral examination is held. While the requirements are considerably below those of many medical schools in the United States, they are equal to those of the majority of British universities. Most of the clinical teaching in psychiatry is carried out by psychiatrists attending the larger general hospitals in an honorary capacity. Australia has not as yet a comprehensive national health scheme on the lines of the British system, with payment for services to public hospitals. The general hospitals of Australia containing a total of some 45,500 beds and cots are attended by 4,400 honorary and 1,500 salaried medical officers, the latter number including the interns.

A Chair of Psychiatry, established in 1922 in Sydney, became vacant in 1951 and the only other Chair, in the University of Queensland, has certain research but no teaching obligations and like the Sydney Chair is not a whole-time position.

Postgraduate education in psychiatry is offered to general practitioners by means of special lectures and clinical work, and special courses are provided for medical graduates who wish to obtain the Diploma in Psychiatry of Sydney (established in 1922), Melbourne, or Queensland. The courses extend over 2 years, the first being devoted to psychology, neurophysiology and neuroanatomy, and endocrinology; the second covering clinical neurology and psychiatry. Most of the candidates have had at least 2 years of experience in a mental hospital, following hospital appointments and practice in general medicine and surgery, before proceeding to study for the Diploma. In Sydney 3 candidates obtain the Diploma each year and about the same number in Melbourne and Queensland.

*Professional Associations.*—The New South Wales Branch of the British Medical Association, through its special section of neurology, psychiatry and neurosurgery has, since 1920, provided the means for the presentation of papers and for discussions on psychiatry and allied topics. The section holds about a dozen meetings a year in Syd-

ney. Psychiatrists in Melbourne were largely responsible for founding the Australasian Association of Psychiatrists in 1946, which now has about 80 members<sup>2</sup> (including 2 in New Zealand) all of whom are wholly engaged in the practice of psychiatry. Members of the association, who must have a diploma or other postgraduate qualification, are about equally divided amongst psychiatrists engaged in private practice and those employed by state departments. The members in the various States hold branch meetings and a general meeting of the Association is held in rotation in the various capital cities. In addition to scientific discussion, pronouncements have been made by the Council of the Association on matters of general policy concerning psychiatry and its relation to the community and social problems. Reports of the Association's proceedings and some of the papers which have been read are published in the *Medical Journal of Australia* and a news-bulletin is circulated amongst the members. There does not appear to be any near prospect that the Association will be able to support a journal of its own.

The Sydney Institute for Psychoanalysis was founded in 1951 and is affiliated with the London Institute. There are 3 fully trained medical psychoanalysts in Sydney and 2 candidates in training. Melbourne has an Institute for Psychotherapy which is less exclusively Freudian than the Sydney Institute. Although, as elsewhere, much of the Freudian and other psychoanalytical theories have been incorporated into current teaching in psychology and psychiatry it cannot be said that psychoanalysis has earned much of a place as a method of treatment. There is also an Australian Society of Psychoanalysts which is a branch of the British Psycho-Analytical Society.

*Mental Hygiene.*—Councils for mental hygiene have been in existence in New South Wales and Victoria for over a quarter of a century, and are now affiliated with the World Federation for Mental Health. Conferences are arranged from time to time on social aspects of psychiatry but it can hardly be claimed that our Councils have attained

<sup>2</sup> Since this paper was written (May 1954), the membership of the Australasian Association of Psychiatrists has increased to 104 Ordinary and 52 Associate Members.

a position of authority in the community. An International Seminar on Mental Health in Children, sponsored by the Commonwealth Institute of Child Health, was held in Sydney in August 1953 and was attended by representatives from many Pacific countries. It would be shortsighted to disregard the number and variety of governmental measures designed with a view to social betterment such as Child Welfare Acts, maternal benefits, family endowments, and the like, which owe nothing to recommendations by psychiatrists. Too often in mental hygiene programmes there has been a tendency to be preoccupied with psychological patchwork rather than with the correction of more basic causes of mental ills, by promoting, for example, sound bodily health of mother and child and adequate living standards. Housing programmes are properly high on the list of governmental activities. Fortunately Australia continues to be blessed with full employment, but with a 40-hour week, need for education in the wise use of leisure is becoming apparent in some quarters. Nor should one overlook the efforts of social workers, almoners, occupational, physical and speech therapists, who have had courses of psychology and psychiatry in their training. The clergy too are appreciating the value of psychology in their pastoral work. Marriage counseling is making steady progress. Alcoholics Anonymous have branches in country centres as well as in the cities. The Spastic Centre and the Subnormal Children's Welfare Association in New South Wales are 2 outstanding examples of private enterprise and self-help. The activities of the State departments of mental hygiene are still restricted to custodial care and treatment.

Racial problems are limited by the "White Australia" policy. Chinese in Australia are the descendants of immigrants during the gold-rush periods of the last century and are well assimilated. That serious crimes and other maladjustments occur amongst the 800,000 Europeans who have arrived during the recent years is not surprising having regard to the noxious influences to which many have been subjected in their formative years. There are some 46,000 full-blooded Aborigines living mostly in the sparsely settled sub-tropical zone, and another 74,000 half-castes congregated near country towns. The rela-

tionship of these coloured people to white Australians still awaits a satisfactory solution.

*Treatment and Research.*—The limited number of salaried psychiatrists in the state departments is in part responsible for the slender output of original work in psychiatry. Graduates who obtain Fellowships and research grants prefer to work in other fields of medical practice. At the same time, the discovery by the Sydney ophthalmologist, Sir Norman Gregg, of the relationship between maternal rubella and certain developmental defects came from a trained mind and careful observation rather than from an elaborate research organisation. Dr. C. R. D. Brothers has investigated pockets of psychopathy in isolated districts in Tasmania. The lithium treatment of states of excitement introduced by Dr. J. F. Cade of Victoria in 1949 deserves special mention. Doses up to 10 grains of lithium citrate or carbonate are given thrice daily with satisfactory results in many cases of prolonged excitement, but as the compound may have to be given for a lengthy period toxic developments are not infrequent and death has occurred even after administration had been discontinued for some weeks. Many more leucotomies have been performed privately than on patients in state hospitals and indeed an enabling Act authorising this treatment in the mental hospitals of the New South Wales Department of Mental Hygiene came into force only in 1953. The physical treatments tend to follow well-established techniques, newer methods being adopted only after critical consideration of results obtained overseas.

Australia is still a young country, the white man has been established here a bare 170 years, and the development of physical resources, specially now water conservation and minerals, makes the strongest claim on financial and intellectual resources. It is not yet possible to speak of any distinctive school of psychiatry, the practice of which is sound and conservative rather than enterprising or experimental.

We are relatively free from cults and esoteric disciplines, maybe because our population is small and, except for 2 large cities, scattered, and also because we remain a fairly homogeneous society with strong British traditions.



## THE ORIGIN OF HUMAN MOVEMENT<sup>1</sup>

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### I

The problem of human paralysis with its organic and psychiatric aspects is basically dependent upon the origin, purpose, and function of the component factors which have given rise to the human motor expressive system in terms of nervous elements, muscles, and bony skeleton of the vertebrate types.

In order to understand the problems of paralysis as it presents itself to the modern clinician for diagnosis and appropriate therapy, the origin and evolution of human movement from the primitive past must be clearly grasped so as to evaluate and rehabilitate its present functional activity.

The studies required to trace the "origin of human movement" lead back through the order of primates, where man holds his pre-eminent place, to the phylum of vertebrates from which our type of structure has emerged. The piecing together of the fragments of evidence from surviving types of vertebrates, along with the fossil forms that have been assembled, now begins to clarify a dim and indistinct common origin and sequence of expressive manifestations in lower forms of life, which preceded our human patterns of response.

From slow motion film analysis of characteristic "patterns of movement" in the newborn human infant comparing them with types of vertebrates (shark), on through the amphibian elaboration with its budding appendages and 2-dimensional projectional type of propulsion, to the 3-dimensional patterns of off-the-ground modification in the land reptile, one can discern a common pattern of power application which man himself has inherited along with the bone and nervous system characteristics.

That structure and elaboration has varied and evolved externally and function has become more smooth and coordinated, is but the story of the automobile, truck, plane, and

motor boat of modern times. Dissimilar in appearance and adaptability to their purpose they, nevertheless, have emerged around the common core of the creation of the internal combustion engine, which proved to be an efficient and labile device of power application to the needs of a modern world of transportation and unit movement.

The elaboration of man's most dignified state of upright (antigravity) method of progression, known as walking, is the result of an uninterrupted process of evolution, covering a period of more than 350 million years. At first glance similarity of structure and even of movement, is not always apparent, when comparing the shark, as one of the highest forms of fish, with those of the later types of vertebrates that learned to live, breathe, and move about the surface of the earth. One of the salient features, however, which characteristically persists throughout this vast period of time is the bony structure of the fins, as they became modified into webbed feet and later to the various bony arrangements found in the surviving vertebrates today. These bony structures supported the trunk and body and were used as *projectional mechanisms* through the muscular structure that formed about the vertebrate cage.

This purpose must never be forgotten in the motivation and rehabilitation of the patient even though the upper extremities now hang from the shoulders and serve to develop the skills of man.

Geology and anthropology, especially the unique sequence collection found in the British Museum, have filled in the gaps of appendage function that now may be identified, step by step, in the similarity and development of the bony pattern familiar to the human being and the age-old function that was served before the primates developed freedom of use of the hands and fingers, an opposable thumb (Tarsoid type), and full convergence of the eyes to permit 3-dimensional stereoscopic vision.

The key to the entire evolutionary sequence lies in the comparative anatomy of

<sup>1</sup> Presented before the Fourth Annual Institute in Psychiatry and Neurology, V. A. Hospital, Lyons, N. J., April 21, 1954.



the vertebrate nervous system, and its few modifications of detail and arrangement in the ages from fish to man. Here there is no "missing link," no incongruity of external appearance, no dissimilarity in appendage, skin, scale, hair, or feathers. The nervous system pattern with its 12 cranial nerves in the fish and amphibian is but a simplified model of our own, and reveals that elaboration of existing structure followed the potentials of expressive adaptation. The 12 pairs of cranial nerves have persisted in unique function throughout this enormous stretch of time. Their function has been scarcely altered since they dominated the waters in the cyclostomes and fish before the higher types of vertebrates emerged.

The importance of these individual pairs of cranial nerves has increased and diminished in combinations of dominant perceptive and expressive function from era to era, and from species to species; but the first pair have always concerned themselves with smell and psycho-emotional reactions dependent upon odors, integrated with the awareness of food, friends, and foe.

The 2nd pair have concerned themselves with light, vision, and the perception of object awareness, with the combined concept of values which the revealed environment instilled upon their sensitive nervous structure. Thus the concept and identification of a flower is both color and fragrance without the addition of other sensory disciplines. A bird concept combines both vision and sound. Later the 5th and 9th nerves with the aid of the 7th and 10th may serve to please the palate and the gastronomies of the gourmet.

The original purpose and design was to survive, reproduce, and conquer the environment which acted upon the mobile unit structure. The light perceptive values of the eyes became intimately integrated with the need for adjustment and focus, to better serve their visual protective exploratory function. Perhaps the least important of their presently considered value was that of detailed object awareness. The sensitivity to light as an adjunct of the sun and stars, and its differentiation from darkness with its uncertainty as to warned approach of impending catastrophe, was more important in a neuro-

muscular integration of defense, than one of appreciation of reading and the comparative values of detail.

The 3rd, 4th, and 6th nerves which command the movement of the orbital structures, to the benefit of the host in selecting the fields of vision, play an enormous part in the emergence of concept awareness which stratifies the psychic foundation and forms the greatest cornerstone for the knowledge and conditioning, both inherited and acquired, that we designate as "instinct" and "intelligence." Important as the 3rd nerve has become in the routine fixation of orbital activity, and the function of fusion and focus, nevertheless, the 6th, or external rectus, became the guiding master of movement when correlation beyond the axis of structure was required.

The 6th nerve, the longest in the human cranial system, the most caudal in its nuclear position, and the most intimately connected through the reticular sub-aqueduct structure with trunk-extremity, has varied least in its long role of protective adjustment of ocular function. In the tonic-neck-reflex we may still observe the automatic eye-head-trunk-tail sequence long before the extremities appeared. When higher levels are withdrawn as in decerebrate rigidity or the advent of a "fit," this eye-head-neck pattern appears to conform to the coordination of its original level of functional response.

The curious arrangement and distribution of the 4th nerve still remains obscure as to its purpose and apparent selective function in assignment to the superior oblique muscle. The rotary effect of its control may well have served as a diverting influence for upward gaze, perhaps commanding the *contemplative period* of emerging types, when the aquatic forms of life turned their eyes upward through a thin film of water surface to contemplate the semi-solid and earthy world that lay beyond.

The primitive marginal vegetation and the lure of food, or a chance to escape the swarms of predatory types that infested the seas of that era, could well have motivated the specialization of the fins and gills of those crude forms that could better survive beyond the water to reproduce and elaborate their kind.

This "prenatal" period marked the dawn of delivery from the surrounding waters to the air-breathing lung-fish and amphibians that eventually were to follow. A similar event, in a matter of hours or minutes, rehearses the evolutionary drama of 100 million years, as each human infant is born to try the first breath of life in a dry and solid world.

The 5th or trigeminal nerve has persisted dominant in its perceptive surface adjustments about the oral structures, and with its intimate evaluation and proprioceptive responses to material engaged by the lips, jaws, and mouth (for purposes of evaluation and consumption of food) and for aggressive fighting, protection, and the participation in breathing. This large cranial nerve grouping has its roots in the nervous structures extending from the mid-pons to the 2nd cervical spinal segment, where it is intimately related with both higher and lower levels of reactive function.

The 7th nerve which we identify with facial movements, closure of the eyes and many modern facilities of expression, served a primary function of manipulation of the mouth as a participant in the acts of modifying the size of the oral cavity, sucking, aiding, and initiating the integrated mechanism of deglutition.

In the 8th nerve (the tympanic membrane of the fish), with its simplified detection of auditory vibrations in water and a simplified vestibular component, has undergone a remarkable improvement and evolution in structural adaptation required for the change of environment between water and air in the higher forms of life that followed.

The 9th, 10th, and 12th nerves subserve their same primitive purposes and even in man are concerned with the sense of taste, and the presentation of food to the lower gut tract, the regulation of visceral structures, and the movement of the tongue, respectively.

Aside from the lateral line organ, which was intimately associated with the primitive facial nerve (7th) and a more detailed elaboration of vestibular cerebellar component, there has remained but one further important addition to the cranial nerve system other than the vast elaboration of patterns upon the primitive elements underlying our human

structure. This addition concerns the importance of stereoscopic vision and the convergence of the eyes. This phenomena did not arise to its full and functional activity until the primate emerged scarcely 1 million years ago, giving rise to a specialized nucleus of the 3rd nerve devoted to the convergence of the eyes, known as the Nucleus of Perla.

The spinal cord with its sensory motor segmental arc arrangement has altered little in primitive plan, except to elaborate and integrate levels of activity for special coordinate function. Around the central reticular core, fibers, tracts, and connections were elaborated as requirements demanded better and more skilled service between stations and relays for the function of the whole.

The sensory and motor roots and pairs in segments throughout the elongated spinal cord have changed in number and concentrated in extremity function such as the sacral and cervical levels along with confluence in the case of the 11th or spinal accessory nerve, merging the rostral cranial group.

Here again the basic pattern of anterior and posterior roots, grey and white matter, and detailed elaboration of the central reticular substance has, from an over-all standpoint, shown little deviation from its original concept. It is true that the crossed pyramidal system did not appear until the amphibian level to dominate coordinated higher level expression of the contralateral extremities, and that the posterior columns did not arise until "off the ground" forms of reptilian structure required elaborate proprioceptive influences from joints, muscles, and postural sense, awareness of skin contact and environmental adjustment, which never were required by the water surfaces surrounding earlier types where application of extremity power of propulsion was universally confined to a liquid media.

With this simple beginning, elaborate as it was, even at the fish level, like a game of chess with given units and endless variety of potential combinations, an expressive manifestation of particular skills became possible and in certain instances represented such "reflex" values, in terms of existing environment and competitive life, which have still persisted as dominant and characteristic "patterns of movement" throughout what is

known as the "age of amphibia," the "age of reptiles," the "age of mammals," and down to the present so-called "age of man."

In the myriad patterns that arose and disappeared, the briefly dominant superior combinations that failed, the common and persistent well adjusted and prevailing "types of pattern of movements" which can be identified clinically as well as geologically, extending into a supremacy state over previous types, so as to be indelibly ingrained in the nervous system for more than 100 million years in each instance, we may find our "normal" and "pathological" reflexes as hold-overs of an ancient past.

The forms and structures which persist today, including man, obviously represent those types that have survived to reproduce, carrying with them from inherent levels of emergence, coordinated nervous structures endowed with a solution of their particular environment. They learned to adapt themselves and solved the issue of type survival to pass on in endless form the trials and errors of relentless progression.

As to the moment of "mutation," variation, and structural adaptation from level to level, or type to type, the vertebrate sequence learned to adjust itself to factors of a volcanic world, favorable vegetational facilities for food, and gas mixtures of oxygen and carbon dioxide in water, and in air, at temperature relationships which varied widely from age to age, as well as other influences that ebbed and flowed with the stupendous time scale involved.

The environmental surroundings from age to age were often calm or chaotic and scarcely comparable to those that we know today. Thus, the beating of physical environment upon the neurosensitive shell, responding with an ever-enlarging motor adaptation to the requirements of survival and conquest of its immediate surroundings, played no less a part than the favorable selection of structural arrangement, which could best cope with the changing ages and the destructive forces that are so mutely written in the strata of the earth's crust and the pulverized remains of glacial forces and pressures extending over these vast periods of time.

Thus it is that we, at the human level, inherited a vertebrate nervous structure,

around which has been evolving various combinations of projectional motor adjuncts now known as extremities, the original purpose of which was to propel the head-trunk-visceral sac in a forward or desired direction.

With these fundamental sequences came a purpose for each mobility of head-trunk structure activated by a universally common nervous system pattern responsible for motor expression from fins to fingers. We must bear in mind the important concept that this vertebrate structure arose in a belly-down position, moving horizontally for the most part and only acquired an "off-the-ground state" in its later manifestations. The dignity of man is expressed in upright walking with freedom of the arms and hands from weight-bearing service, irrespective of the fact that he prefers to lie upon the back or fold his hands in a sitting position. This highest form of motor expression must be treated as it arose in posture and in purpose, not as we may today feel convenient and comfortable.

The allusion to this primitive or horizontal state of progression is abhorrent psychologically and emotionally. This fact cannot be overestimated. To be "down" or "knocked flat" must be considered as a posture of humiliating indignity. Self-ego feeds upon the privileges and superiorities of those most recent acquisitions, because of which man is the new and proud owner of a popular model of mobility and superior activity and believes he may be forgiven for his intolerance and tendency to pity his less fortunate relatives of the vertebrate family, who did not fare as well in the course of time, nor acquire the skills of his individually unique accomplishments.

## II

With this planetary glance at the primitive past we may now interpret with a fair degree of tolerance, the basis for certain "patterns of movement" which aid in rehabilitation of patients after higher cortical controls have been lost. The ease with which these ancient reflexes and semiautomatic responses and patterns of movement may be obtained in the spastic types of paralysis, the intrinsic exercise they afford to the voluntarily paralyzed muscle groups and the subtle satisfaction

they provoke in the human victim, when power and movement seem to reappear in an otherwise useless part, have now established their place in physical medicine and neuromuscular therapy. The psychological effect upon the handicapped patient cannot even be estimated as he so frequently again "captures control" in part, or substitute act in a formerly frozen fist or arm, leg or foot. The patterns of the past lie far below the cortex and, when this higher level is afflicted, may emerge through proper reflex stimulation to give the crude elements of movement and of power that prevailed before the cerebral hemispheres developed.

The newborn infant, when analyzed on the abdomen in shallow water and the movements compared with the characteristics of early types, such as the amphibian or reptile, shows the beautiful coordination and controls of types that were active in this original belly-down life expression long before man emerged.

Here we find the superiority of man in his self-styled supremacy merely a replica of certain simple fundamental "patterns of movement" designed for the purposes of projection of the head and trunk, before he acquires during childhood (within the first 12-14 months), an upright unaided expressive state of antigravity progression. This simple phase from birth to walking covers an evolutionary period of 200 million years. As the first breath of air marks the greatest moment of every human life, and the celebration of his birthday throughout his survival, so it is the first step in upright walking marks him as superior to all preceding vertebrates and prevailing types today. The motivation in rehabilitation lies in the recognition of these primitive ego satisfactions and should be focalized as the motivating purpose of rehabilitation therapy, not the glamor of a future job, or acquisitive hoarding of an elusive dollar.

If we are to deal with the motor mechanisms involved in paralysis and the psychomotor mechanisms related to their purposes, as well as the so-called mental attitudes inherent with the loss of this supreme acquisition, we must see that human movement has emerged, along with its meaningful psychomotor component from a grim and dynamic

past and that we cannot consider any successful therapy which treats one without consideration of the other.

Here in a common purpose, for basic individual survival and mobility, lies the challenge of rehabilitation, to *supply or satisfy, replace or substitute* imitative structure or satisfactory simple basic motor performance, along with assurance to the individual that the substitution replacement or agent of remaining expression may be associated with the psychodynamic pleasures, existing in power performance, and purposeful objective at a primitive level, even if the higher skills of man cannot always be restored.

It is here that we may now survey the "reflex" activities which we find normally and pathologically in the human being and can now be used to his benefit when certain higher levels are lost by "stroke," hemorrhage, disease, or accident to the surface brain levels.

These so-called "normal reflexes," as they appear in individuals without pathology, may be considered as the scattered fragments of "patterns of movements" once impressed upon a sensitive nervous system for the purposes of defense, now obsolete and outworn, nevertheless appearing at an automatic and semiautomatic lower level of nervous system response, when certain sensory perceptive and peripheral stimuli and postures are assumed, or simulating the many activities that the patterns of response originally sought to serve.

We may now take those dominant and controlling reflex responses which have survived the ages of evolution and elicit them by proper methods of superficial deep and postural stimuli. We shall also find that there are certain dominant sequences in these inherent reflexes that begin to automatically formulate "patterns" and "types of response" in muscle groups, similar to the earlier forms of movement in vertebrate life.

It is important to recognize the tonic-neck-reflex, inherited from the fish level of the vertebrate elaboration, consists of the turning of the eyes and head in a definite direction, which influences and activates certain upper- and lower-extremity responses. The reflex itself (known as the tonic-neck-reflex) may have little purpose or significance,



if obtained in the conventional manner, with the patient lying on the back. The best examples of this pure reflex response is to be found in the "decerebrate types" of human beings in whom, when the occiput is turned, there follows a coordinated response of both extremities on one side, that is, the arm and leg may be lifted in an extended position (homolateral response) as the occiput rotates away from the responding side.

If, however, this phenomenon is observed, in the decerebrate types, with the patient *face down* and *on the abdomen*, relating the movement of the head to the oral cavity, it will be found that as the oral cavity turns toward the side, there is a lateral movement of the eyes and an extensor movement of both extremities on the same side. The thumb advancing towards the oral cavity, as the lower extremity also advances on the same side (homolateral amphibian pattern) to which the head and eyes are turned. This phenomenon may be repeatedly produced by turning the oral structure from side to side, which then evokes an alternate homolateral response, and the decerebrate human being begins to initiate automatic crawling movements similar to that seen in the salamander.

The spontaneous turning of the head and eyes with elevation of an upper extremity is often noted in convulsive seizures, as a preliminary phase to the onset of repetitive movement, known as the "clonic state" (homologous release).

This head and eye movement is characteristic of the fish and dominates control of the trunkal undulation involving the attached upper and lower fin paddles (extremities) in such a way that there follows a certain sequence of events. The eyes turn, the head is laterally rotated and, in the vertebrate forms, there is a trunkal movement that progresses, from neck to tail, in time and sequence like the undulations of the eel. This flow of power in higher types precedes the movement of the shoulders, arm, and forearm. The trunk movement continues to the lower extremities in an undulating fashion and is segmentally accompanied by a supporting movement of the extremity on the same side. Differentiation of lateralized combined or homolateral movement arose with the advent of the pyramidal system, identi-

fied in ambloblastoma (by Coghill) as at the amphibian level.

The eye-neck turning, releases a homolateral movement of the extremities so that the shoulder, arm, forearm, with the trunkal undulation coordinates the propulsive power of the lower extremity as seen in the salamander, particularly.

Such *homolateral* movements are characteristic of the amphibian state, along with one other persistent type, known as *homologous movements*, which involves the use of both upper extremities simultaneously, and both lower extremities likewise, at their respective cord levels.

When this movement is integrated, it gives the hopping effect noted in the frog, and, in its more modernized form, in the galloping of a horse, the loping of a dog, jumping in the squirrel or rabbit, of the mammal species, and can easily be identified in almost pure form in the newborn infant or later with certain leaping and bounding movements in man, when great power and primitive strength and speed is required within mechanism of flight or fear ("jumped with fright," "leaped at his opponent").

Using the neck reflex as a timing guide, by turning the head to the side with the homolateral extremities advanced so that the thumb approximates the mouth, the *cerebral spastic patient in the prone position*, a series of movements may be initiated by passively moving the parts on the advanced side, downward and backward as the head turns away to meet the advancing pair of extremities on the opposite side.

By alternating these patterns as the head is turned in proper time, an amphibian crawling type of movement can be induced and conditioned with or without the patient's aid, if the pathology is one primarily of spastic nature and the lesion lies above the thalamic level involving chiefly the pyramidal motor system.

The continued practice of this pattern leads spontaneously in most cases to the next higher type of movement found characteristically in the reptile (turtle). Here the position of the patient and the sequence of the head and upper extremity movement is the same, but instead of the lower homolateral extremity advancing and extending

on the same side, the contralateral member does so instead. This is known as the "crossed diagonal pattern" and is best observed in the turtle as the highest form of reptile in existence today.

This crossed diagonal sequence is found in most walks or trots of mammals and is present in man as "associated movements" of the arms, when they swing freely and normally in walking or marching, contralateral to the advancing foot.

This is the typical free "sailor's gait" which characterizes walking not as "stilted progression" of the feet, but a coordinated symphony of shoulders, arms, and body as well.

To fix the upper extremities by crutches, bars, or objects to grasp is to defeat the sequence, that in the horizontal manifestation leads to crawling and eventually to proper body balance by the arms and head when upright progression is attempted. Thus we may learn from the acrobat and toe dancer the great assistance of upper body structures in the establishment of antigravity and balance coordination and should apply these to the problems of rehabilitation where crude balance ambulation can be obtained even if the skills and coordination of human modifications cannot. Support of the patient by a ring (fixed to a firm vest) situated over the upper thoracic spine attached by pulley to an overhead bar offers free use of head-neck and upper extremities in the proper practice of walking patterns.

The normal human "reflexes" are those that are retained in spite of, or without control of higher motor centers as we find them in the adult state today. The so-called "pathological reflexes" are those which *emerge* and can be obtained, when higher cortical centers have lost control or have been interfered with. Their functional alteration represents primitive responses that have developed in early vertebrates and are integrated in the human pattern of expressive movement, even though of no current value in the activities of man today.

Slow motion film studies of free swimming movements in the amphibia and reptiles indicate that some of these "patterns of movement" are closely reproduced in the newborn human infant. The sign of Babinski, which

is normal in every newborn child, disappears or is controlled when the higher motor levels of specialized function have taken over in the performance of upright walking, as in man. Certain other "reflex" manifestations, which are almost at an automatic level of response, and obviously without higher cortical controls, appear in the form of the Hoffman, Marie-Foix, clonus, etc.

The human infant, when placed on the abdomen in shallow water, will display within the first 9 days of life, remarkable repetition of amphibian movements, especially those of the "homologous type," that is, using both upper extremities at one time, and both lower extremities together in a hopping-kicking-swimming form of activity. Within the 9-day period there usually appears a *homolateral type* of movement, in which the head is slightly turned toward the side, as the arm and leg are elevated to produce the first crawling type of pattern so familiar in the salamander.

In these expressions of projectional activity and propulsion it will be noted that the lower extremities serve the function of projecting the head and trunk forward in the desired direction. The upper extremities are used for steering, guiding, feeding, and other miscellaneous exploratory activities which do not have the same amount of reflex and automatic stereotyped pattern that is found in the lower extremities. This has given rise to the feeling that in the sacral cord there is a more highly integrated grouping of proprioceptive and motor expressive responses, and some have referred to this area as the "caudal brain."

In the paraplegic these movements may be identified as jerking, withdrawal movements or "reactions of defense." They are easily elicited by the Marie-Foix reflex, or by stimulation of the plantar surface of the foot, using a strong stimulant such as scratch, plus deep pressure, so that eventually the entire "withdrawal reflex" may ensue, following a mild superficial activation of the Babinski response.

It is now obvious that the Babinski sign is related to the orientation of the webbed footed extremity, when it contacts a solid surface (in the frog). The toes are spread in order to give this type of amphibian more



application of surface for the power projection feature which will follow. The Marie-Foix withdrawal manifestation is part of the preparation for the next projection effort, and is obtained by acute flexion of the tarsal-metatarsal joint arising in the terminal phase of the propulsion effort. The widespread webbed foot closing down to a collapsed structure, and then, with acute flexion of the toes or distal extremity to a certain point, there is induced a reflex of the legs flexing acutely (withdrawal state) in which the part is placed in a favorable position for the initiating of the next propulsive act. This sequence can be easily obtained by utilizing the proper reflex mechanisms, and exists entirely independent of higher cortical levels as observed in paraplegics with transection of the cord above the 10th thoracic level.

Repeating the Marie-Foix procedure 30-50 times relaxes the adductors and reduces spasticity so that physical therapy and training efforts may be more easily accomplished.

The spastic hand can be easily "unlocked" by placing it palm up over the buttocks (patient on the abdomen) when the head is turned away from the side involved.

If in this position the thumb is moved over to the opposable position (metacarpal joint) the fingers may be easily opened. The probable explanation lies in the postural sequence as this phase is the termination of the upper extremity cycle of power projectional flow and the hand and fingers (fins) are in a "neutral" or "dead center" state between the flexion power thrust just completed and the next phase of retrieving the part (extensor tone) for the next projection sequence.

Tight flexion (spastic) of the forearm yields to lifting the elbow to the shoulder level and rotating the humerus 30°. The arm may then be easily straightened by drawing it downward and backward. These are known as "unlocking reflexes" and can be traced to early "patterns of movement" with their automatic postural adjustments.

Many more well-known reflex responses may be found and actively used to exercise muscles by intrinsic mechanisms (patellar, Hoffman, Babinski, and clonus) or develop conditioned responses in the patient (Marie-Foix, Rossolimo, etc.) to be later used if captured and controlled to aid in feeding,

self-care, walking, or vocational rehabilitation as may be eventually determined.

Time does not permit the many aspects of the problem which the past 12 years of study have disclosed, such as "unlocking reflexes," "captured reflex function," training of the spastic hemiplegic to utilize a formerly useless hand, if the slightest finger movement is retained, or the clinical difference in required therapy between a frontal lobe type of spastic motor handicap and the parietal (sensory) kind, which, although each presents a useless part, each has its almost diametrically opposite but specific physical and occupational therapy program.

In the spastic paraplegic, the sacral cord or so-called "caudal brain" can be partially subdued by peripheral reflexes such as the Marie-Foix, Babinski, Pussepp's, and other so-called pathological responses that comprise the reflexes of defense in man, but are merely released amphibian patterns of automatic swimming in the frog. This caudal brain appears to be educable to a local "reflex dominance" when voluntary conscious command is lacking.

Here again the survey of the origin of human movement has given us new avenues of approach to the problems of spastic pathology and the eventual rehabilitation or aid to the defective cerebral nervous structure of highly organized man.

With these adjuncts at our disposal and a rapidly growing application of neuromuscular therapy, based upon the evolutionary past and an underlying neuromuscular mechanism, we may apply to man the values of *reflex movement* and even robot expression of effective response, if we choose to activate, cultivate, and utilize the patterns of the past.

No one may replace a destroyed human cortex, but if the ambulation of an amphibian or huge reptilian type still resides deep in the uninvolved levels of the vertebrate nervous structure, who is to complain when a spastic hemiplegic can learn to coordinate like a dinosaur and leave his bed or chair for greater freedom of action or feed like an amphibian, if it releases another to join society again and makes the patient less dependent?

In the past 6 years we have observed the results of these "unlocking reflexes" and

"patterns of movement" at the Philadelphia General Hospital with the cooperation of the Department of Physical Medicine under Dr. Martucci's guidance. It has established a new approach to the problems of paralysis and been marked by favorable results.

There are times when man must "stoop to conquer," and in drawing on his inheritance and not his recent pride, find an answer to the "slings and arrows of outrageous fortune" to take up arms against a sea of trouble.

## THE PSYCHOSURGICAL TREATMENT OF PSEUDONEUROTIC SCHIZOPHRENIA<sup>1</sup>

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The striking relief of chronic neurotic symptomatology by psychosurgical treatment has been reported by Freeman and Watts, Greenblatt, *et al.*, Partridge, Hoch, and Pool (1, 2, 3, 4, 5, 6). In an earlier paper, Hoch (7) made a preliminary report on the effects of topectomy on a group of patients with pseudoneurotic schizophrenia. The present paper presents further data on the above group of patients as well as reporting the effects of other psychosurgical procedures in this type of emotional disorder.

### MATERIAL AND METHODS

The patient material is made up of 40 voluntary admissions to New York State Psychiatric Institute, all of whom had a diagnosis of pseudoneurotic schizophrenia according to the criteria of Hoch and Polatin (8). In some clinics these patients would be given a diagnosis of severe psychoneurosis. However, it was felt that they had a superstructure of neurotic mechanisms masking the primary symptoms of schizophrenia. All had some mixture of anxious, phobic, obsessive, depressive, and hypochondriacal symptoms; the constellations of leading symptoms were distributed as follows: obsessive-phobic phenomena, 20; depressive-hypochondriacal complaints, 8; phobic-depressive symptoms, 6; and 5 in whom the leading symptom was diffuse anxiety, usually with accessory depressive or hypochondriacal phenomena and one with a fairly typical hysterical syndrome and some depression.

There were 22 women and 18 men, with ages ranging from 20 to 69 in the following

distribution: age 20-29: 8 patients; 30-39: 18; 40-49: 10; 50-59: 2; 60-69: 2. Duration of illness was from 4 to 45 years with the exception of one patient who developed severe obsessive symptomatology following pneumonectomy for bronchogenic carcinoma. In view of his age, debilitated condition, distress, and failure to respond to other forms of psychiatric treatment, a psychosurgical procedure was done a year after the onset of his symptoms. The duration of illness was distributed as follows: less than 4 years: 1 patient; 4-6 years: 8; 7-10: 9; 11-15: 10; 16-20: 6; 21-30: 4; more than 30 years' duration: 2. An effort was made to determine the age of each patient at the time of onset of illness. A reasonable degree of accuracy was achieved based on interviews with patient and relatives as well as records of past treatment. Age at onset ranged from 11 to 49 years, with 5 patients whose illness began before age 15; age 15-19: 7; 20-29: 19; 30-39: 7; 40-49: 2.

All patients had had psychotherapy as well as various other types of psychiatric treatments. A number had received one to several years of psychoanalysis without significant and lasting improvement. Psychotherapy had been tried with 2 or more therapists in almost every instance, including variable periods of inpatient psychotherapy. Some of the patients with marked depressive features had received ECT, but with only temporary relief. Other treatments including various drugs, carbon dioxide, inhalation, and photic stimulation had been used. A more detailed account of the selection of patients for psychosurgery is published elsewhere (9).

A number of the patients in the present series were known to the authors, or treated by one of us, for periods up to 3 years prior to psychosurgery. All patients were seen many times by at least 2 psychiatrists over a period of several months prior to operation.

<sup>1</sup> Read at the 110th annual meeting of The American Psychiatric Association, St. Louis, Mo., May 3-7, 1954.

<sup>2</sup> From the Department of Experimental Psychiatry, New York State Psychiatric Institute, conducted in collaboration with Sidney Malitz, M.D., Donald B. Douglas, Jr., M.D., Robert A. Senescu, M.D., Bernard Wilkens, M.D., Stanley Lesse, M.D., Eleanor Maddock, M.S.

Detailed clinical and psychodynamic studies were carried out in order that we might become as well acquainted with the patient and his illness as possible. In most patients the response to one or several drugs was recorded and evaluated. Some of the results of these investigations were published elsewhere and a summary of findings will appear in a future publication. Under the supervision of the authors, the nursing and adjutant staffs recorded their observations. All data from these various sources were considered by the authors, functioning as a board, and conclusions were reached concerning diagnosis, symptom constellation, prognosis with psychosurgery, and the operation of choice (10, 11, 12, 13, 14, 15).

Three different types of psychosurgical procedures were used. The topectomy operation has been previously described (16). The other operations are known as the precoronal lobotomy and the medial lobotomy. These procedures are described in detail by Dr. Pool and Dr. Ransohoff in a pending publication. For present purposes only a brief description will be given. Both procedures entail the cutting of the white fibers of both frontal lobes in a plane 2 centimeters anterior to the plane of the coronal suture. In the precoronal lobotomy, all the fibers in this plane are cut, while only those of the medial half of each frontal lobe are severed in the medial lobotomy. It must be emphasized that the standard lobotomy operation is done in the plane of the coronal suture as is the medial lobotomy used in the group described by Greenblatt, *et al.* (17). The precoronal and medial lobotomies used in our series are less radical procedures in that fewer white fibers are cut.

From the day of operation, each patient is under the care of a psychiatrist, even though routine postoperative care is carried out by the neurosurgeons. Patients are seen daily and psychotherapy is given as indicated. A rehabilitation program is carried out by nursing, occupational therapy, and social service staff, under the supervision of the authors, as has been described in more detail elsewhere (18, 19, 20). Observations from all of these sources are recorded. In addition, each patient is seen by the authors, functioning as a board of psychiatrists, and rated as

to improvement at 3-month intervals for 6 months and then at 6-month intervals for 54 months. The improvement-rating scale is used most conservatively and the rating is based on observations by staff, comparison and contrast with preoperative status, the patient's social and occupational performance, comments by relatives, and the patient's subjective evaluation of his status.

## RESULTS

*Improvement After Psychosurgery.*—The therapeutic effect of the various operations on the 40 patients after 6-48 months of postoperative observation are recorded in (Table 1). If the figures for the first 3 groups are added, one finds a total of 24 patients with significant improvement (65%). All patients who show any degree of improvement are out of the hospital, *i.e.*, 33 of the 37 living patients (89%). Of the 4 patients in the hospital, 2 have never been out of hospital since operation. Two others were out of hospital and showed improvement for a year after operation, but subsequently relapsed and required rehospitalization 18 and 24 months respectively after operation. At this writing both these patients have been discharged.

Patients who were rated as unimproved presented quite the same clinical picture as was seen preoperatively, or there was slight reduction in anxiety or other symptomatology. We have seen no evidence of persistent personality damage in any patients of this group. There is a period of disinhibition, lethargy, and poor emotional control, a temporary organic syndrome present during the

TABLE 1

RESULTS OF VARIOUS PSYCHOSURGICAL PROCEDURES IN 40 PATIENTS

	Topectomy	Medial lobotomy	Precoronal lobotomy	Other	Total	Per cent
Recovered .....	6	1	..	..	7	19
Much improved...	4	1	..	..	5	14
Improved .....	6	3	3	..	12	32
Slightly improved.	3	3	2	1	9	24
Unimproved .....	2	1	..	1	4	11
Dead .....	..	1	1	1	3	..
Total operations..	21	10	6	3	40	..

first several weeks after operation but which gradually disappears. No permanent residua have been noted.

There are differences among patients in the diminution and disappearance of symptoms during the first few months following operation. Some are completely free of symptoms from the day of operation. In others, an obsessive idea may appear but it no longer has a dominating emotional charge. Later, the obsessive ideas do not occur to the patient. The phobic patient may have some reluctance about challenging his specific fear but is often surprised that the formerly frightening situation no longer provokes anxiety. The anxiety which had formerly pervaded every thought and action is no longer present and there is much more freedom of functioning.

Patients rated as recovered or much improved were completely or essentially free of the symptoms which had formerly paralyzed functioning and nullified satisfaction in living. They were able to function quite well in all areas with equal or greater ease than before onset of the illness. The attendant satisfaction was most gratifying to them. The underlying stigmata of schizophrenia were, of course, unchanged by operation.

*Operative Procedures and Postoperative Complications.*—The 40 patients had psychosurgical procedures during the 4-year period prior to this evaluation. Twenty-one had a topectomy, 10 had a medial lobotomy, 6 had a precoronal lobotomy, and 3 had other procedures (Table I). The latter 3 patients had previously had topectomy or medial lobotomy without significant improvement and therefore it was decided to do a precoronal lobotomy. The results of the original operations in these 3 patients are not included in the data in Table 1. There was only one operative death though there is a mortality of 3 in this series. The other 2 patients died of disorders unrelated to the surgical pro-

cedure, one with metastatic, bronchogenic carcinoma, and the other with lung abscess with empyema. Following the immediate postoperative period, there have been convulsive seizures in 6 patients, an incidence of 15%. In all patients, it is possible to control seizures by medication. Two of the patients have each had 3 seizures since operation performed in the early months of 1950, but have had none during the past year. Three others have had one seizure each. One patient had numerous seizures prior to her second operation. It was felt that these were associated with her poor cooperation in taking anticonvulsant medication. It will be noted that one of these patients is rated as recovered, 3 as improved, and 1 as slightly improved, demonstrating an absence of relationship between presence of seizures and significant improvement.

Sixteen of the 21 patients (76%) who had a topectomy are rated as having significant improvement, whereas only half (50%) of those patients having a medial or precoronal lobotomy have such a rating. We do not believe that the number of these modified lobotomy operations nor the follow-up period for patients who had them are sufficient to warrant conclusions at present.

*Follow-up Period.*—As noted above, these patients were seen at regular intervals following operation performed 6 to 48 months before this study. A consideration of the follow-up period of the 37 living patients reveals that there is a relationship between it and the improvement rating. In the case of 16 patients, there was a follow-up period of 36 to 48 months (Table 2). Of these patients 88% have a rating of significant improvement (improved, much improved, or recovered) and only 12% have a rating of no significant improvement (slightly improved or unimproved). Of 16 other patients for whom there was a follow-up period of 12 to 30 months, 56% have a rating of

TABLE 2

RELATIONSHIP OF IMPROVEMENT TO POSTOPERATIVE FOLLOW-UP PERIOD

	6 months' follow-up	12-30 months' follow-up	36-48 months' follow-up
Total patients .....	5	16	16
Significant improvement .....	1 (20%)	9 (56%)	14 (88%)
No significant improvement .....	4 (80%)	7 (44%)	2 (12%)



TABLE 3

RELATIONSHIP OF RECENT IMPROVEMENT RATINGS TO IMPROVEMENT RATING 6 MONTHS AFTER OPERATION

	12-30 months' follow-up	36-48 months' follow-up	Total 12-30 months' follow-up
Total patients .....	16	16	32
Higher rating than at 6 months.....	5 (31%)	12 (75%)	17 (53%)
Lower rating than at 6 months.....	3 (18%)	2 (12%)	5 (16%)
Same rating as at 6 months.....	8 (50%)	2 (12%)	10 (31%)

significant improvement, while only 20% of the 5 patients with a 6-months' follow-up have such a rating.

It is possible to compare the improvement ratings given 6 months after operation with those given 12-48 months after operation in the 32 patients with a minimum of 12 months' follow-up period (see Table 3). Seventeen patients had a better rating at the time of this study than 6 months after operation. Ten patients (41%) had the same rating, while 5 (16%) were given a lower rating. Considering only the 16 patients with a 36-48 month follow-up, 12 (75%) had a better rating at the most recent evaluation, 2 had the same rating, and 2 had a lower rating.

*Age of Patient, Duration of Illness, and Age at Onset.*—There is no evidence of a significant relationship between the age of the patient at the time of operation and significant improvement after psychosurgery. Duration of illness in this series is not consistently related to the improvement after operation as can be seen by the following data. Of patients with 4-6 years' illness, 75% had significant improvement with psychosurgery; 7-10 years' duration: 63% significant improvement; 11-15 years: 77%; 16-20 years: 33%; 21-30 years: 50%; patients with more than 30 years' duration of illness had 100% significant improvement.

Table 4 shows the data relating the age at onset of illness to significant improvement

after psychosurgery and also shows certain pertinent information on duration of illness. Patients in this series whose age at onset of illness was less than 15 years appear to be less responsive to psychosurgery (40% with significant improvement) than those who were older at the time the illness began (67% or more with significant improvement). This finding is apparently unrelated to duration of illness as is evident in Table 4.

#### DISCUSSION

The present study indicates that psychosurgical procedures of various types can be therapeutically effective in patients with pseudoneurotic schizophrenia who have failed to benefit from other forms of treatment. The data show that there was significant improvement in 65% of the 37 living patients investigated, with 6-48 months' follow-up. However, it has been demonstrated that significant improvement is present in 88% of the patients with a follow-up period of 36-48 months, strongly suggesting that gains are continuing for more than 2.5 to 3 years after operation. It may be postulated that the patient who achieves freedom from symptoms with operation requires a period of growth, during which time he may develop new skills and techniques of functioning. During this period, though he is relatively free of disabling symptoms, his social, emotional, and occupational functioning

RELATION OF IMPROVEMENT TO TIME FACTORS IN ILLNESS

TABLE 4

Age at onset	No. of patients	Per cent with significant improvement	(Years) Duration illness (Range)	(Years) Average duration
Under 15 .....	5	40	6-25	14.2
15-19 .....	7	70	5-45	22.6
20-29 .....	19	67	4-20	11.2
30-39 .....	7	71	4-37	15.7
40-49 .....	2	Dead	....	....



must be evaluated, both subjectively and objectively, as impaired though emergent. In view of these factors as well as the conservatism of the authors in evaluating patients during the first year or two after operation, the progressive improvement after operation, as shown in the rating scale, could be explained.

Comparing the improvement ratings given to patients 6 months after operation with those given most recently in 32 patients reveals that 53% of patients achieved a higher rating in the more recent evaluation, while 31% had the same rating and 16% had a lower rating. This would further substantiate the concept of progressive improvement for a long period after operation. From a prognostic point of view, one may state that the chances are excellent that the improvement rating of a given patient 6 months after operation will be maintained or bettered in the future.

The patients with significant improvement at the time of this study, a majority of the group, warrant some comment as to the quality of the improvement. These persons have been freed of disabling anxiety and other symptoms and are able to develop their resources for functioning and satisfaction in living. A number of the patients returned to former occupations but learned new skills or further developed old ones. Various patients undertook academic courses and pursued them successfully. Certain patients confronted with harassing domestic and social problems were able to manage them with wisdom and patience, seeing them to a successful resolution. There was no evidence of impairment of depth of emotional feeling. Any change was rather in the direction of greater depth of feeling which became possible with the freedom from anxiety. Many patients were able to forgo gross dependency on parents or parent-surrogates despite lifelong patterns. There is no change in the basic structure of the personality, and character traits are present which have been present preoperatively. In some patients, one may see a mild or moderate character disorder, the presence of which was formerly masked by the more striking symptoms. The relation of these traits to the basic symptoms which warrant the diagnosis of pseudoneu-

rotic schizophrenia is a fascinating topic for discussion but beyond the realm of this communication.

As mentioned above, we do not believe that this material includes a sufficient number of medial and precoronal lobotomies with a long enough follow-up period to warrant comparison with the topectomy operation. A consideration of the relative merits of the 3 procedures would include discussion of technical difficulties from the point of view of the neurosurgeon, therapeutic results, and incidence of undesirable side effects such as convulsive seizures. Such a discussion will be included in another paper, written jointly with the neurosurgeons and dealing with a larger number of operations of each type.

The findings in this study indicate that psychosurgical procedures of the type described are therapeutically valuable in patients with pseudoneurotic schizophrenia. The question arises, however, as to why some patients benefit remarkably, others achieve definite gains but less dramatic improvement, while a minority of patients have minimal or no improvement. There is no evidence to suggest that improvement is related to differences in symptom constellations or to the age of the patient at the time of operation. In contrast to the findings of others, improvement in our patients with well-preserved personalities is not related to duration of illness. However, the limited data suggest a significant relationship between the age of the patient at the time when the illness began and improvement with psychosurgery. It appears that onset of illness before age 15 is not favorable prognostically for improvement with psychosurgery. The present data are insufficient to subject to statistical analysis but a trend is indicated. This will be investigated in a larger group of patients with overt schizophrenic symptoms but who are not deteriorated. The problems of determining the actual age of a patient when his illness began is complicated and is arbitrarily based on the patient's subjective recollection of partially disabling symptoms and relatives' observations of the patient's distress. Speculations concerning the relation between early onset, failure to sustain the impact of puberty and to assimilate the connotations of adolescence, and later failure to

respond to treatment must be postponed until more data are available.

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# INTENSIVE INSULIN SHOCK THERAPY—A FIVE-YEAR SURVEY

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This study is based upon 5-year survey of cases admitted to the insulin division of this hospital from the date of inception of the unit, April 15, 1948, to April 15, 1953. Insulin dosages were high and averaged between 300 to 1,000 units per treatment; and, in some instances, dosage was between 1,000 and 1,600 units. The average number of insulin coma hours was 131.5 per patient; and the length of treatment was approximately 57.3 days per case based upon a 5-day schedule, Monday through Friday(1). Depth of insulin coma was maintained in the fourth stage for approximately 20 minutes. Other elements of technique were based upon the principles established by Shurley and Bond in the insulin unit of the Pennsylvania Hospital for Mental and Nervous Diseases, Philadelphia, Pa.(2). Combined electroshock therapy was applied in those cases in which the patient failed to show satisfactory improvement under insulin shock therapy alone(3). The technique of this therapy was based upon that as set forth by Horowitz and Kalinowski(4). All cases during the course of insulin therapy were treated intensively in individual or group psychotherapy as well as in the various clinics of physical medicine rehabilitation. The departments of psychology, social service, vocational counseling, and special services cooperated fully in the support of this program.

Of the original 615 cases accepted in the unit for treatment, 84 required premature termination by reason of varying complications, which left a total of 528 cases that completed the full course of therapy and are the ones used for the data of this report.

The diagnostic classification of these cases is given in Table 1.

Study of Tables 1 and 2 reveals that almost one-half of the patients treated were diagnosed as paranoid schizophrenia; about one-fourth were diagnosed as catatonic schiz-

ophrenia; and the other significant group was the unclassified schizophrenias, which numbered about 14%. A comparison in the results of the functional recoveries of the diagnostic groups indicated that the manic-depressive, manic, group had the best functional recovery. The manic-depressive, depressed, group revealed 77.7% functional recovery rate within 6 months; the unclassified schizophrenias, 64.2%; catatonic schizophrenia, 62.3%; paranoid schizophrenia, 57.8%; simple schizophrenia, 41.6%; and the hebephrenic class, 42.7% for the same period.

In the groups requiring rehospitalization, it is noted that the largest group was the catatonic schizophrenia, 26.8%; unclassified schizophrenia, 16.6%; and paranoid schizophrenia, 22.9%. It is held with general opinion that the catatonic and paranoid schizophrenias obtain the best results in therapy; but it is well to note that even the hebephrenic, simple, and unclassified groups obtain approximately 50% functional recoveries.

Those manic-depressive groups having schizophrenic features and who were refractory to other forms of therapy revealed an excellent response to insulin therapy.

TABLE 1  
DIAGNOSTIC CLASSIFICATION

Diagnoses	Cases	
	No.	%
Paranoid schizophrenia .....	247	46.7
Catatonic schizophrenia .....	138	26.1
Hebephrenic schizophrenia .....	21	3.9
Simple schizophrenia .....	12	2.2
Unclassified schizophrenia .....	84	15.8
Manic-depressive, manic .....	6	3
Manic-depressive, depressed .....	9	
Manic-depressive, mixed .....	1	
Miscellaneous		
Depressive reaction .....	3	
Anxiety reaction .....	2	
Dissociative reaction .....	1	
Paranoid state .....	1	
Psychosis unclassified .....	1	
Schizoid personality .....	1	
Mental deficiency, primary, with psychotic reaction .....	1	

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TABLE 2

## DIAGNOSTIC CLASSIFICATION VS. RECOVERY

	Paranoid schizo- phrenia	Catatonic schizo- phrenia	Hebe- phrenic schizo- phrenia	Simple schizo- phrenia	Unclasi- fied schizo- phrenia	Manic-Depressive		Others
						Manic	Depressive	
Immediate functional recovery* .....	247 89 (36.6%)	138 65 (47.1%)	21 6 (28.5%)	12 1 (8.3%)	84 30 (46.4%)	7 5 (71.4%)	9 5 (55.5%)	10 6 (60.0%)
Functional recovery within 6 months.....	54 (21.8%)	21 (15.2%)	3 (14.2%)	4 (33.3%)	15 (17.8%)	2 (28.5%)	2 (22.2%)	1 (10.0%)
Functional recovery within 1 year.....	18 (7.2%)	7 (5.0%)	1 (4.7%)	2 (16.6%)	6 (7.1%)	0	0	2 (20.0%)
No recovery, remains hos- pitalized after 1 year..	86 (34.8%)	45 (32.6%)	11 (52.3%)	5 (41.3%)	24 (28.5%)	0	2 (22.2%)	1 (10.0%)
Relapsed functional re- coveries requiring hos- pitalization to 4/15/53.	37 (22.9%)	25 (26.8%)	0	1 (14.2%)	14 (16.6%)	1 (14.2%)	0	2 (22.2%)

\* Functional recovery is defined as that degree of recovery sufficient to permit release of the patient from the hospital on a 90-day trial visit status. It usually involved psychiatric remission but not necessarily if the patient's condition was benign, and if his home environment was capable of adequate support.

Of the 528 cases, 513 (97.1%) were male and 15 (2.8%) were female. It is difficult to arrive at a satisfactory comparison in the treatment of the male and the female groups because of the small number of the latter; however, the percentage factor in each category is not widely variant, and it is of interest to note the approximation of percentages of those requiring rehospitalization who had attained a functional recovery (Table 3).

In the comparison of the 390 white with the 138 Negro patients, it is noted that the percentage of functional recoveries is slightly greater for the white population while the percentage of those remaining hospitalized after one year is 8% less. The percentages

of rehospitalization of both groups are almost identical (Table 4).

Approximately 62% of the patients treated were within the 25-35-year age group (Table 5). The better percentage of functional recoveries was obtained in the 20-year group and progressively diminished as the age increased; however, in the consideration of chronicity of schizophrenias we found a 62.2% recovery rate within one year following insulin therapy. In a study of the functional recoveries of the various age groups (Table 6) there can be no doubt that those remissions obtained by insulin therapy offset the cost in conducting a well-integrated insulin unit.

In the study of the functional recovery rate in the relation to the duration of illness prior to insulin shock therapy, the rate of functional recovery for those treated within 6 months of onset was 86.1% and progressively diminished to 53.5% for those ill longer than 2 years prior to insulin treatment (Table 7). It is noted that the percentage of failures increases in the chronic group but a return of 53% of this class to the community speaks well for insulin as a form of therapy.

The question occasionally arises as to whether insulin therapy should be instituted early or whether the patient should receive the benefit of other therapies first. No at-

TABLE 3

## SEX VS. RECOVERY

	375 males		15 fe- males	
	No.	%	No.	%
Immediate functional recovery after termination of treatment .....	158	42.1	3	20
Functional recovery within 6 months .....	80	21.3	3	20
Functional recovery within 1 year .....	24	6.4	2	13.3
Remains in hospital after 1 year .....	113	30.1	7	40
Number of patients requiring rehospitalization after functional recovery—to 4/15/53.	62	23.6	2	25

TABLE 4  
RACE VS. RECOVERY

	390 white		138 Negro	
	No.	%	No.	%
Immediate functional recovery.....	161	41.3	53	38.4
Functional recovery within 6 months.....	83	21.2	24	17.4
Functional recovery within 1 year.....	26	6.6	8	5.7
Remains hospitalized after 1 year.....	120	30.7	53	38.4
Number of functional recoveries requiring rehosp- italization to 4/15/53.....	64	23.6	20	23.5

TABLE 5  
AGE GROUPS TREATED

Age	Number of patients	Percentage
Under 20 .....	3	0.5%
20-25 .....	92	17.4%
25-30 .....	195	36.9%
30-35 .....	140	25.3%
35-40 .....	82	15.5%
40 or Over.....	14	2.5%

tempt will be made to answer this question, but a comparison is made as to the results of deep insulin therapy based upon the period of hospitalization (Table 8). The rate of functional recovery is 78.1% for those treated by insulin of those hospitalized less than 6 months and progressively diminishes to 37.6% for those hospitalized longer than 2 years prior to treatment. These statistics

TABLE 6  
AGE VS. RECOVERY

	Age group					
	Under 20	20-25	25-30	30-35	35-40	40 or over
Immediate functional recovery.....	3 (66.6%)	92 (47.8%)	195 (42.0%)	140 (36.4%)	82 (34.1%)	14 (35.7%)
Functional recovery within 6 months.....	1 (33.3%)	22 (23.9%)	36 (18.4%)	29 (20.7%)	15 (18.2%)	4 (28.5%)
Functional recovery within 1 year.....	0	4 (4.3%)	10 (5.1%)	9 (6.4%)	8 (9.7%)	1 (7.1%)
No recovery, remains hospitalized after 1 year .....	0	22 (23.9%)	65 (33.3%)	52 (37.1%)	31 (37.8%)	4 (28.5%)
Number of released patients requiring hos- pitalization to 4/15/53.....	0	15 (24.4%)	34 (26.5%)	19 (21.3%)	12 (23.5%)	0

TABLE 7  
DURATION OF ILLNESS VS. RECOVERY

	Duration of Illness			
	Less than 6 months prior to treatment	Less than 1 year prior to treatment	Less than 2 years prior to treatment	More than 2 years prior to treatment
Functional recovery within 1 year.....	152 131 (86.1%)	74 52 (70.2%)	60 41 (68.3%)	241 129 (53.5%)
No recovery, still hospitalized after 1 year.....	21 (13.8%)	22 (29.7%)	19 (31.6%)	112 (46.4%)
Rehospitalized recoveries up to 4/15/53.....	24 (18.3%)	8 (15.3%)	12 (29.2%)	36 (27.9%)



TABLE 8  
PERIOD OF HOSPITALIZATION VS. RECOVERY

	Period of Hospitalization Prior to Treatment			
	Less than 6 months	6 months to 1 year	1 to 2 years	More than 2 years
Functional recovery within 1 year.....	320 (78.1%)	45 (64.4%)	55 (61.8%)	109 (37.6%)
No recovery, still hospitalized after 1 year.....	250 (21.8%)	29 (35.5%)	34 (38.1%)	41 (62.3%)
Rehospitalized recoveries up to 4/15/53.....	70 (21.6%)	16 (17.2%)	21 (23.5%)	68 (31.7%)

compare favorably with others in the early institution of insulin therapy.

In the analysis of the 528 cases treated, there were 273 cases released from the hospital as immediate functional recoveries; however, during the 5-year program there are listed 2 patients who committed suicide and 5 others who died from other causes, leaving 266 patients who are still out of the hospital since the inception of the program in 1948. The results from an annual analysis are as follows:

*April 15, 1948-April 15, 1949.*—Total number of cases treated, 88; rehospitalized following functional recovery, 19 (21.5%); remaining hospitalized, 27 (30.6%); remaining out of hospital to date, 42 (47.7%).

*April 15, 1949-April 15, 1950.*—Total number of cases treated, 122; rehospitalized following functional recovery, 22 (24.7%); remaining hospitalized, 48 (32.8%); remaining out of hospital to date, 52 (42.4%).

*April 15, 1950-April 15, 1951.*—Total number of cases treated, 121; rehospitalized following functional recovery, 23 (19%); remaining hospitalized, 35 (28.9%); remaining out of hospital to date, 63 (52%).

*April 15, 1951-April 15, 1952.*—Total number of cases treated, 125; rehospitalized following functional recovery, 12 (9.6%); remaining hospitalized, 39 (31.2%); remaining out of hospital to date, 74 (54.2%).

*April 15, 1952-April 15, 1953.*—Total number of cases treated, 72; rehospitalized following functional recovery, 1 (1.4%); remaining hospitalized, 29 (40.2%); remaining out of hospital to date, 42 (58.3%).

It is realized that the statistics of the last 3 years of those remaining out of the hospi-

tal are higher than that reported for the first 2 years of this study; however, it is believed that in the final analysis the 1951-1953 group will approach that of the first 2 years.

In a study of the 84 cases that required premature termination because of various complications arising out of insulin and combined insulin-electroshock therapy, 27 patients (32.1%) attained functional recoveries and were either discharged with maximum benefit of hospitalization or placed on trial visit status.

The statistics of this paper compare favorably with those of other authors and in fact are somewhat more favorable in those with functional recoveries and who are at this time remaining out of the hospital. It was found that those patients who revealed immediate functional recoveries relapsed if retained in the hospital environment beyond 2 or 3 weeks. Social service and other ancillary services were therefore brought into the treatment program prior to institution of insulin therapy whenever possible and the home prepared for the return of the patient in the event that a remission was brought about. We are of the opinion that the hospital should retain functional recovery patients no longer than a week or 10 days to give the patient an opportunity to adjust on an open ward and make final preparations for trial visit care and follow-up procedures. Individual and group psychotherapy was well received by the patient during the course of insulin therapy and together with other ancillary services; i.e., physical medicine rehabilitation, vocational counseling, etc., promotes a longer remission following completion of insulin therapy.



## SUMMARY

In this series 528 cases—the great majority of them schizophrenics—were treated with intense deep insulin coma.

The functional recovery rate was between 47.4% and 71.3% among different schizophrenic groups and between 77.7% and 100% among manic-depressive groups.

It is difficult to compare results between male and female patients because of the small number of the latter. However, the results in both groups seem to be about even.

Comparing white and Negro patients, the white group has a somewhat higher functional recovery rate.

Most of the treatment patients were between 25 and 35 years of age.

The recovery rate is highest in the younger age groups, particularly in the group of 20-25 years of age.

The rate of recovery decreases with the length of illness prior to institution of treatment.

The rate of recovery decreases further with length of hospitalization prior to institution of treatment.

Of 528 treated cases, 266 are still out of the hospital.

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# THE NURSING SERVICE AND THE AIMS OF A PSYCHIATRIC HOSPITAL: ORIENTATIONS OF WARD PERSONNEL TO THE CARE AND REHABILITATION OF PSYCHIATRIC PATIENTS<sup>1</sup>

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## STATEMENT OF THE PROBLEM

In recent years workers in the psychiatric hospital field have shown increasing concern about the social structure of the hospital and the values and attitudes of personnel who have the most direct and continuous contact with the patients. There has been a growing recognition of the fact that the fate of the hospital program is very dependent on the behavior and motivation of ward personnel, and a number of reports have appeared which indicate how tightly bound together are the patients' recovery chances and the pattern of social relations existing in the wards (1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14).

This paper presents initial findings from an intensive study of the motivations of ward personnel in 2 state psychiatric hospitals. The theoretical focus of the research was the general question of the *commitment* of individuals to the goals of organizations in which they worked or otherwise participated. The concept of commitment denotes a high degree of personal involvement in organizational goals (*i.e.*, it refers to a situation where an organizational goal has actually become an important personal goal). The

study investigated the extent of the ward personnel commitments to the welfare and rehabilitation of patients, and attempted to determine the effect of certain social and psychological factors on such commitments (6). The paper is primarily methodological and attempts to measure commitment. Specifically, the internal consistency of the commitment measures will be examined. Forthcoming reports will deal with substantive issues more directly through analyses of relationships between commitment and other variables included in the study.<sup>3</sup>

## METHODOLOGY

The study was conducted in 2 state psychiatric hospitals which differed in certain important respects. Space does not permit more than a brief description of the major differences.<sup>4</sup>

Hospital "X," with a patient census of over 4,000, consists of a large main building and a few smaller "annexes" with the patients grouped in large wards. The nursing service has about 570 individuals in 3 occupational groups: approximately 100 graduate nurses, 50 psychiatric technicians, and 420 institutional attendants.

At the time of the study, the patient census in Hospital "Y" was about 1,500, with a little over 400 persons in the nursing service: 25 graduate nurses, 50 psychiatric technicians, and 330 institutional attendants. "Y" was laid out as a series of small cottages with a central hospital building. It had been established to treat patients with one particular type of mental disorder only (epileptics) and had become known as a "custodial" institution. About 6 months before the study was

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The study has benefited from discussions with Dr. William Caudill, Mrs. Anita L. Mishler, Mr. Asher Tropp, the Committee on Social Issues of the Group for the Advancement of Psychiatry, and staff members of the National Association for Mental Health.

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<sup>3</sup> Papers in preparation deal with such topics as recruitment, status and interaction, and the personality characteristics of psychiatric personnel.

<sup>4</sup> Greater detail will be found in future reports as the specific characteristics of the hospital social structures are examined with reference to the commitments of their respective personnel.

made, a new top administrative staff was appointed. They brought with them a new conception of the hospital's function and its future development. It is now to become a general diagnostic and treatment center. A number of changes are in progress, involving a new building program as well as changes in the medical and administrative structures.

A stratified random sample was drawn from the nursing services of both hospitals in such a manner that the 3 occupations in each hospital were represented relatively equally in the final sample rather than in terms of their proportion of the total nursing service (for special reasons, attendants at hospital "Y" were oversampled). A disproportionate stratified sample was chosen to facilitate comparative analyses of the different groups and to ensure a sufficient number of persons in each of the occupational categories within the budgetary and personnel limitations of the study.

A complex and lengthy schedule was constructed(6), and intensive interviews ranging from 1½ to 3 hours were held. In general, cooperation and rapport appeared good.

The questions designed to measure commitment reflect theoretical considerations, which may be briefly noted. First, even relatively unambiguous institutions like hospitals (*i.e.*, unambiguous with regard to their general function) have various and sometimes conflicting goals of which most individuals are more or less aware. A commitment to any of these alternative goals involves evaluation and choice on the part of the individual. The questions allow for choice and permit the expression of equally intense commitments to more than one goal.

Second, preliminary theoretical work(6) suggested that the intensity of a commitment could vary along a hypothetical continuum from the simple recognition of the legitimacy of an organization's goal, through a positive reaction to demands made on behalf of the goal, to a point where a person's feeling of worth might largely depend on his own contributions to the achievement of this goal. An attempt was made to tap points along this continuum by having individuals selectively evaluate certain objectives both as organizational goals and as personal goals.

At the level of organizational goals the respondent was asked to express his opinion as to the relative importance of 13 possible aims of a psychiatric hospital. A number of these referred to the treatment of patients. (These particular statements will be introduced at appropriate points in the analysis.) Respondents were asked to indicate how important it was, in their own opinion, that mental hospitals "really get each of these things done," by marking the items as either "extremely," "very," "somewhat," or of "little" importance. After finishing this rating the respondent was asked to rank-order all his "extremely" important choices in terms of how important he believed each to be.

This 4-point scale (with 2 strong positives) was devised after pretests had indicated that individuals were loathe to mark anything as not being "very" important but were perfectly able and willing to discriminate between "extremely" and "very" important aims. The additional ranking procedure made it easier and more acceptable to discriminate among goals which were all positive since the individual was permitted to mark as "extremely" important as many of the statements as he wished.

For the second commitment question (at the level of personal goals) the respondent was given a list of 6 statements and the following verbal instructions:

Suppose (this) hospital had a system of giving awards to personnel for outstanding work. Let's say, for example, that twice a year prizes are given to those people who were outstanding in one of the following things: (list is given to respondent). Suppose that after you'd worked here for a while you'd won 10 prizes. For which of the reasons on that list would you personally like to have received these prizes. For example, one person who received 10 prizes might like to have received all of them for one of the reasons, while someone else might like to have gotten some of the prizes for each of the reasons. Regardless of what your work actually consists of now, how many of these 10 prizes would you personally like to have received for each of these reasons?

The 6 statements, in order of presentation, were:

- a. Outstanding in his efforts to raise the standards of his profession or occupation.
- b. Outstanding in his efforts to give good nursing care to his patients.

c. Outstanding in his efforts to be friendly and cooperative with other personnel.

d. Outstanding in his efforts for the recovery and rehabilitation of patients.

e. Outstanding in his efforts to improve the efficiency and smooth running of the hospital.

f. Outstanding in his efforts to make the ward life pleasant and interesting for the patients in his care.

**Results.**—Included among the 13 items in the question on hospital aims were 5 that referred directly to the treatment and management of patients.<sup>5</sup> Two were concerned with the adequacy of the nursing and therapeutic programs and provide the first index of an individual's commitment to care and rehabilitation: (1) Give good nursing care to patients in the hospital. (2) Have an active therapy program (*i.e.*, shock therapy, psychotherapy, O.T., etc.) to get patients well enough to adjust to the outside world. The other 3 items referred to the custody and control of patients: (3) Make sure patients don't hurt any of the personnel. (4) Make sure no patient is released if there's a chance he'll get into trouble or hurt someone. (5) Make sure patients don't escape from the hospital.

The proportions of the 3 occupational groups at both hospitals who rated each of these aims as "extremely" important are presented in Table 1.

There appears to be general agreement on the "extreme" importance of nursing care and rehabilitation as hospital aims (somewhat more so for the former than the latter). Occupational differences seem to be stronger than hospital differences. The occupational labels, of course, derive their power from the multitude of factors which they summarize. The hospital community could, of course, be as powerful a factor, and for any particular hospital it would be problematical which of these forces exerted the strongest pull on the attitudes and behavior of the staff.

The psychiatric technicians are highest

<sup>5</sup> Two additional items in the area of patient management appeared, on analysis, to be ambiguous and they have been excluded from further consideration. Of the remaining statements on the list 2 defined each of the following potential goals of a psychiatric hospital: the community function, training and research, and the welfare of personnel.

on those aims which refer to care and rehabilitation, while the attendants are highest on those which refer to the custody and control of patients. Particularly with regard to the aims of custody and control, nurses seem to resemble psychiatric technicians more than attendants.

For both technicians and nurses care and rehabilitation are of greater importance than custody and control (most strongly so for the technicians), whereas the attendant groups seem to assign about equal importance to both. This may be seen by comparing the median percentages of each group for both sets of aims: for technicians, the medians are approximately 88% for care and rehabilitation and 42% for custody and control; for nurses, the respective medians are about 75% and 45%; and for attendants, 67% and 66%.

This analysis which simply compares percentages is of limited value in that it restricts the potential range of legitimate inferences (by not making adequate use of all available information) and requires additional caution in interpretation (statistical tests of significance for percentage differences are counter-indicated for such small numbers). A more refined analysis is undertaken below.

The additional ratings and the rank-ordering were taken into account and scores calculated by assigning the following weights: ratings of "somewhat" or "little" importance are scored "0"; "very" important, "1"; an "extremely" important item not ranked in

TABLE 1

THE RELATIVE IMPORTANCE OF HOSPITAL AIMS:  
THE CARE, REHABILITATION, CUSTODY, AND  
CONTROL OF PATIENTS

(Percentage rating selected aims as "extremely" important)

Group *	N	Care and rehabilitation †		Custody and control †		
		(1)	(2)	(3)	(4)	(5)
Nurse-X .....	17	82.4	82.3	35.2	52.9	29.4
Nurse-Y .....	25	80.0	68.0	16.7	52.0	36.0
Technician-X ..	17	88.2	88.2	5.9	52.9	35.2
Technician-Y ..	22	86.4	90.9	18.1	54.5	36.3
Attendant-X ...	15	80.0	66.7	26.7	73.3	67.7
Attendant-Y ...	42	90.5	61.9	51.2	78.5	64.2

\* The symbols X and Y in this and the following tables refer to the 2 hospitals.

† The column numbers refer to the different hospital aims described in the text.

the top 3, "2"; the third-ranking item is "3"; the second, "4"; and the highest ranking item is "5." Thus, for any particular aim an individual could receive a score from "0" to "5," with the one restriction that scores of "3," "4," could each apply uniquely to only one item on the list.

Table 2 presents the mean scores for the different groups of each of the aims discussed.

In general, these results tend to support the interpretation that the occupational differences are more marked than the hospital differences. In addition, there is some indication (in the magnitudes of the F-ratios for the 2 hospitals) that Hospital "X" is more homogeneous than "Y," *i.e.*, the 3 occupational groups seem to be more similar to each other in "X." The evidence for this is slight but is consistent for the magnitudes of the actual differences between the means as well as for the F-ratios themselves (the latter might depend only on differences in sample size).

TABLE 2

THE RELATIVE IMPORTANCE OF HOSPITAL AIMS:  
THE CARE, REHABILITATION, CUSTODY, AND  
CONTROL OF PATIENTS

(Mean scores for selected aims and tests of significance between groups)

Group	N	Care and rehabilitation		Custody and control		
		(1)	(2)	(3)	(4)	(5)
Nurse-X	17	3.2	3.3	1.2	1.5	1.1
Nurse-Y	25	3.6	2.7	1.0	1.8	1.3
Technician-X	17	3.4	3.1	.6	1.5	1.2
Technician-Y	22	3.7	3.3	.8	1.4	1.3
Attendant-X	15	2.8	2.5	1.2	2.1	2.1
Attendant-Y	42	3.7	2.4	1.8	2.1	1.9

F-tests of significance for differences among  
Means of all groups within each hospital:

Hospital X	...	.64	1.01	1.95	1.36	5.30†
Hospital Y	...	.01	2.32	6.82†	2.39	3.88*

T-tests of significance for differences between  
means of occupational groups—both hospitals combined:

Comparisons						
Nurses-						
Attendants	.....	0	1.54	2.15*	1.69	3.59‡
Nurses-						
Technicians	.....	.11	.26	2.14*	.81	.19
Technicians-						
Attendants	....	.11	2.50*	3.93‡	2.60†	3.18†

\*.05 level of significance.

†.01 level of significance.

‡.001 level of significance.

Two of the findings previously suggested in Table 1 come through more clearly. The first is that nurses and technicians are more similar to each other than either is to the attendants. The second is that these group differences are strongest with regard to the aims of custody and control, on which attendants are consistently high as compared with nurses and technicians.

The analyses in Tables 1 and 2 have been a tangential but necessary preliminary for the major problem, *i.e.*, the measurement of commitment to the welfare and rehabilitation of patients. It has so far been assumed that at the level of organizational goals commitment is measured by an individual's evaluation of the aims of nursing care and therapy. This assumption would receive some support if, as would be expected on theoretical grounds, an inverse relationship is found between commitments of this kind and attitudes to the custody and control of patients.

For further analyses it would be convenient to summarize an individual's judgments of the aims of nursing care and therapy. One method is to combine the scores. This assumes that each item is equivalent in meaning to the other, and that a score high on one and low on the other is the same (for purposes of analysis) as the reverse. Other interview material, however, suggested that individuals oriented more strongly toward one or the other of these aims, and further, that these differences in emphasis might be systematically related to other characteristics. For this reason, an alternative method which served to categorize persons according to which of these 2 aims they judged to be among the 3 most important. The distribution of persons in the 4 resultant groups are presented in Table 3.

With the exception of "Y" attendants, the proportions of persons rating either nursing care or therapy as among the 3 most important aims of a mental hospital are relatively equal (columns 5 and 6). However, a large number give this rating to only one of the aims rather than to both. This supports the inference drawn from the interview that orientations to these 2 aims may be somewhat independent of each other. Therefore the original conception of the unitary nature of this commitment must be revised.



TABLE 3

THE RELATION BETWEEN JUDGMENTS OF NURSING CARE AND THERAPY AS MAJOR AIMS OF A MENTAL HOSPITAL

(Number of persons rating an aim as among the 3 most important aims)\*

	Both aims	Therapy only	Nursing only	Neither aim	Total percent therapy	Total percent nursing
	(1)	(2)	(3)	(4)	(5)	(6)
Nurse-X .....	6	4	4	1	66.7	66.7
Nurse-Y .....	11	5	7	2	64.0	72.0
Technician-X ..	8	3	4	2	64.7	70.6
Technician-Y ..	8	6	8	0	63.6	72.8
Attendant-X ...	1	5	5	3	42.9	42.9
Attendant-Y ...	12	5	18	7	40.4	71.4
All groups-X...	15	12	13	6	58.7	60.9
All groups-Y...	31	16	33	9	52.8	71.9
All groups-X+Y	46	28	46	15	54.8	68.1

\* The required information for 2 nurses and 1 attendant at hospital "X" was not ascertainable from the interview and these cases have been omitted from analyses based on this classification.

Individuals may be committed to either or to both or to neither of the aims of nursing care and therapy.

These 4 groups will be kept distinct in the following analyses. Group I refers to those who place both aims among the top 3; Group II to those who place only therapy among the top 3; Group III for nursing care only; and Group IV for those who place neither in the top 3. These will be referred to as goal-orientation groups.

Individuals who are committed to both care and rehabilitation of patients are expected to be least concerned with their custody and control (defined by 3 aims: making sure patients don't hurt personnel, are not released if there's danger of trouble, and do not escape from the hospital).

Table 4 and Fig. 1 (which presents percentages derived from Table 4) tend to support the hypothesis about the inverse relation between these 2 sets of aims. Individuals committed to both nursing care and therapy place the least emphasis on custody and control, while those not committed to either care or therapy place the most emphasis on these aims (the chi square comparing only these 2 groups is 6.99\*\*). A commitment to either care or therapy alone leads to a middle position between these 2 extremes.

Since no restrictions were placed on the total number of aims a respondent might rate

TABLE 4

THE RELATION OF COMMITMENTS TO THE CARE AND/OR THERAPY OF PATIENTS TO JUDGMENTS OF CUSTODY AND CONTROL

(Number of persons judging custody and control aims as "extremely" important)

Goal-orientation group		The number of custody and control aims rated as "extremely" important	
		0 or 1	2 or 3
Hospital X....	I	11	4
	II	7	5
	III	7	6
	IV	3	3
Chi Square = 1.574			
Hospital Y....	I	19	12
	II	9	7
	III	15	18
	IV	1	8

Chi Square = 7.536

Both Hospitals

Combined ..... Chi Square = 7.608 (p. < .10)

as "extremely" important, any differences between groups for a specific aim or set of aims might reflect this general tendency rather than point to an actual difference. Groups I and IV are found to be quite similar with regard to the total number of aims rated as "extremely" important (means respectfully of 7.04 and 7.2). It appears, therefore, that the goal-orientation groups differ from each other in the substantive content of the hospital aims judged as "extremely" important.

This confirmation of theoretical expectations supports the assumption that evalua-

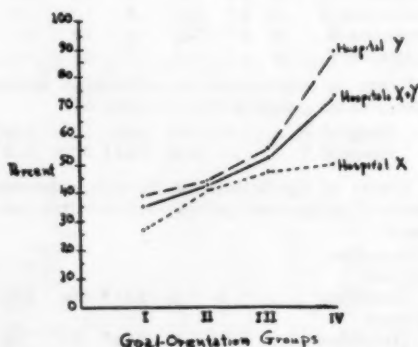


FIG. 1.—The relation of commitments to the care and/or therapy of patients to judgments of custody and control. (Percentage judging 2 or 3 custody and control aims as "extremely" important.)



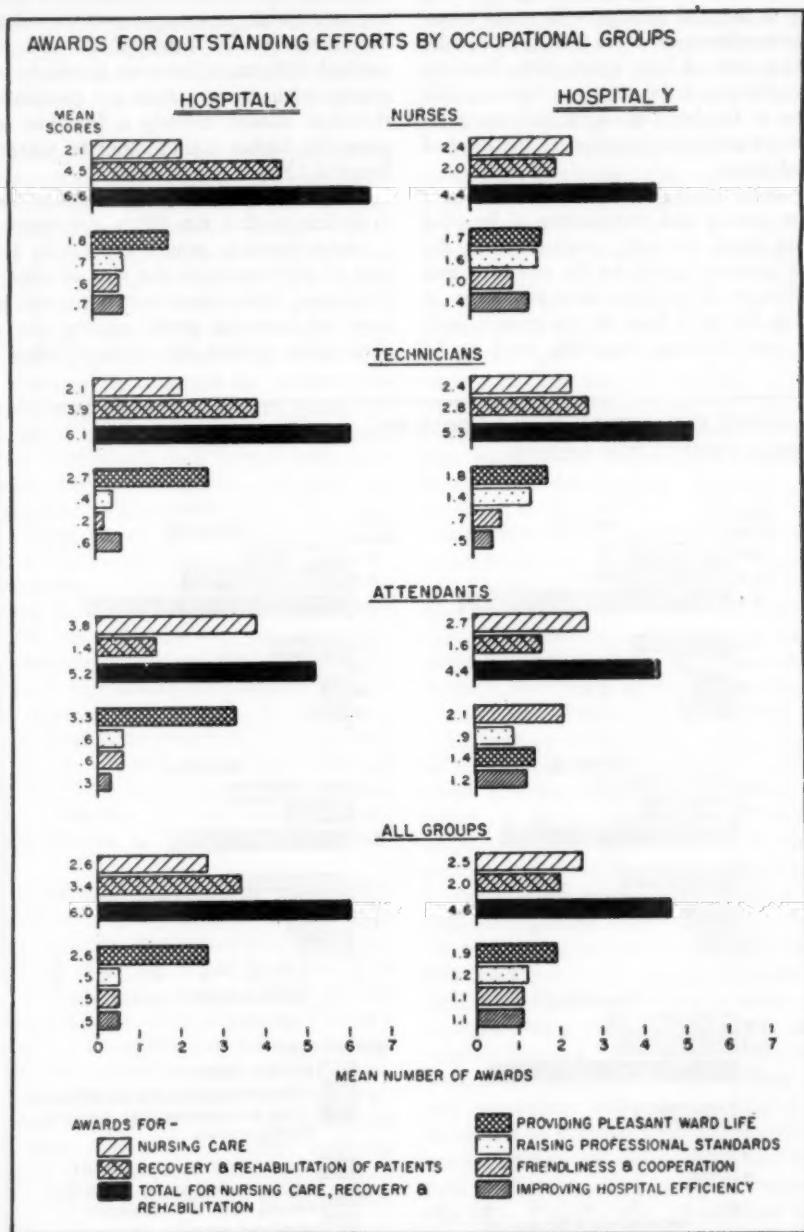


FIG. 2.—Judgments of hospital aims as personal goals by different groups of ward personnel. (Mean number of awards desired for outstanding efforts on behalf of various hospital objectives.)

tions of the importance of nursing care and therapy as hospital aims provide some measure of commitment to these aims. An equally important test of this assumption involves an examination of the relations between this question at the level of organizational goals and the commitment question at the level of personal goals.

The major finding illustrated in Fig. 2 is that the nurses and technicians of hospital "X" are more strongly committed, at the level of personal goals, to the recovery and rehabilitation of patients than are those at "Y." On the other hand all the groups, both within and between hospitals, tend to be

relatively equal in their commitment to nursing care (with the exception of the relatively high mean for "X" attendants). The rather marked differences between hospitals which appear when these 2 aims are combined are therefore almost entirely a function of the generally higher commitment to therapy at hospital "X."

The evidence in Fig. 3 is rather similar in indicating that the differences among the 4 goal-orientation groups are largely a function of differences on the aim of rehabilitation alone. Differences in commitment at this level of personal goals among the goal-orientation groups are reduced when both

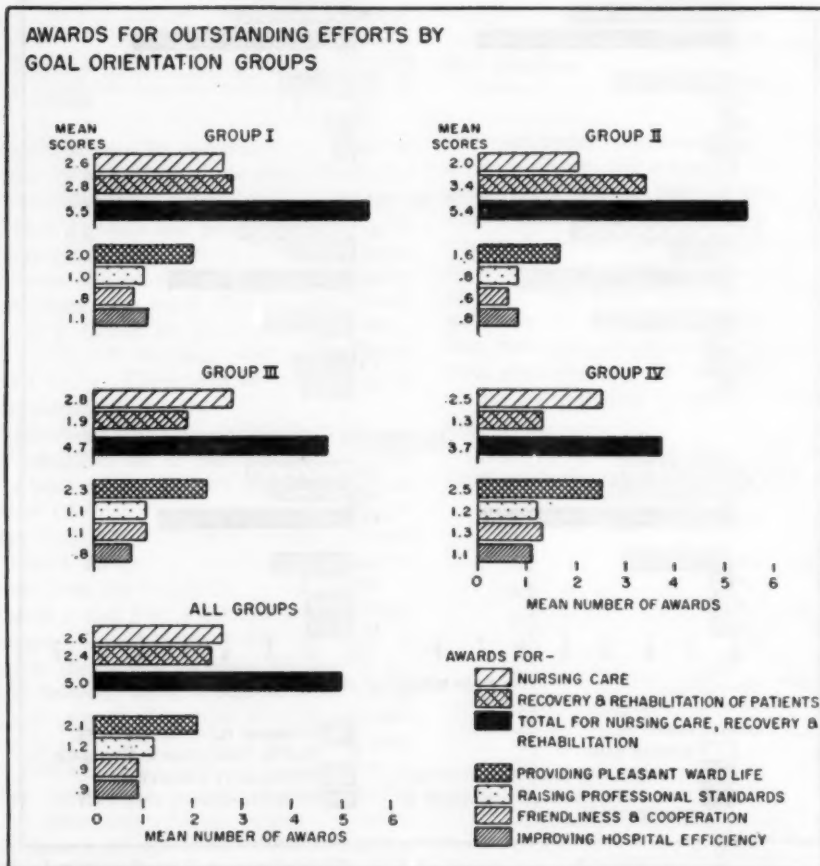


FIG. 3.—The relation between judgments of hospital aims as organizational goals and as personal goals. (Mean number of awards desired by 4 goal-orientation groups for outstanding efforts on behalf of various hospital objectives.)

aims are combined (e.g., the F-ratio for differences for the combined aims is 2.66, barely missing the .05 significance level, but the F-ratio for the recovery and rehabilitation aim is 4.91, well beyond the .01 significance level).

To determine the consistency between the 2 measures of commitment, one must examine how individuals in the 4 goal-orientation groups differentially allocate their awards to nursing care and rehabilitation. The highest number of awards for rehabilitation are desired by Group II persons, who rated therapy but not nursing care as among the 3 most important aims of a mental hospital. Group III, who had the reverse pattern with regard to organization goals, are here highest in their desire for nursing care awards. Individuals who judged both aims as among the 3 most important, Group I, are in a balanced middle position, i.e., they want more awards for rehabilitation than those in Group III but fewer than those in Group II, and more awards for nursing care than those in Group II but fewer than those in Group III. The only inconsistent element comes from persons in Group IV who thought neither aim was among the 3 most important. At the level of personal goals, however, this group desires more awards for nursing care than Group II and almost as many as Group I. Their low total for both aims is entirely a function of their relative lack of personal interest in recovery and rehabilitation.

All in all, it is believed that the findings presented in Fig. 3 show a marked consistency between the measure of commitment at the level of organizational goals and that at the level of personal goals. With this result and those presented previously (Table 4 and Fig. 1) an affirmative answer may be given to the central question of this paper. The 2 measures of commitment are consistent with each other. This will permit the use of these questions, in further analyses, as indices of an individual's commitment to the care and/or rehabilitation of psychiatric patients.

#### DISCUSSION

The explicit methodological emphasis in the present report has occasioned the rela-

tive neglect of substantive issues. However, inasmuch as the study is concerned directly with the motivations of psychiatric personnel, it seems appropriate to comment briefly on some of the more important substantive questions raised by the findings.

Nursing personnel at hospital "X" seem to be more concerned with therapy as a personal goal than are personnel at "Y" (Fig. 2). This difference is most marked for nurses and least marked for attendants (for whom there is an actual though insignificant reversal of this tendency). On a *priori* grounds one might have expected the nurses to be the more homogeneous group. The reverse finding suggests that the differences in orientation derive from differences between the hospitals themselves. It may be that nurses with different orientations to therapy are differentially recruited and retained in the 2 hospitals or that the hospital atmosphere in "Y" has tended to hinder the development of a therapeutic orientation. The history of "Y" as a "custodial" institution would seem to fit with this interpretation. The positive outlook of the new administration had not yet become, at the time of these interviews, an important component of the orientations of "Y" personnel.

Differences among the occupational groups show up much more strongly than do differences between the hospitals. More accurately, it is the attendants, by their de-emphasis on therapy and their emphasis on custody and control, who consistently differ in commitment pattern from the other 2 occupational groups (Tables 1 and 2, Fig. 2).<sup>6</sup> There is some indication that differences of this kind are even sharper between technicians and attendants than between nurses and attendants (although this may be true only for hospital "Y"). All the analyses emphasize the strong similarity between nurses and psychiatric technicians. This may be important to hospital administrators and for hospital personnel policy in indicating that even a relatively short period of training (in this case, 1 year) may be sufficient for the development of orientations toward patients

<sup>6</sup> Other reports will deal with the relation of these commitment patterns to the objective job responsibilities of the different groups.

as positive as those held by the more well-trained nurses.

Only about one-third of all individuals judge both adequate nursing care and a good therapeutic program to be among the 3 most important aims of a psychiatric hospital (Table 3). A considerably larger group accepts only one or the other of these aims as among the most important. It may be hypothesized that different factors are operative for those who are primarily therapy-oriented (Group II) than for those who are primarily nursing care-oriented (Group III). For example, it appears that the former group tends to view nursing care as a rather static and custodial form of treatment and seems to be saying that it should not be too strongly emphasized. On the other hand, the nursing care-oriented group does not appear to have incorporated in its outlook current conceptions of the therapeutic function of the hospital. If these different factors are involved then different action programs are necessary if both groups are to be brought to an acceptance of both aims as among the "most important" ones.

One next step in further research lies in isolating the determinants of the commitment patterns described here—determinants which reside in both the personality of the individuals and the social structures of the hospitals. Future reports of this study will deal with these topics.

#### SUMMARY

This study takes for granted that the welfare and recovery chances of patients in psychiatric hospitals are dependent, to a considerable extent, on the motivations and behavior of nursing service personnel. An approach to research on this problem which takes as its focus the personal involvement of ward personnel in the positive hospital goals of nursing care and rehabilitation is proposed. The concept of commitment is developed to describe this motivational pattern.

This first report of an intensive study of

the motivations of ward personnel in 2 state psychiatric hospitals is primarily concerned with the measurement of commitment. Two questions were constructed for this purpose. One asked for evaluations of the aims of nursing care and rehabilitation as hospital goals and the other for evaluations of these aims as personal goals.

The original assumption that commitment to these 2 hospital goals is a unitary dimension finds no support in the results: It appears that individuals may be committed to both, either, or neither of the aims of nursing care and rehabilitation.

The 2 questions are found to be consistent with each other. It is held that this justifies their continued use in further work as indices of an individual's commitment to the nursing care and/or rehabilitation of patients.

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## THE DESIRABILITY OF CERTIFICATION OF ADMINISTRATORS OF HOSPITALS AND SCHOOLS FOR DEFECTIVES<sup>1</sup>

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It is indeed a great privilege to appear before this group of members of the American Association on Mental Deficiency, and to present informally the reasons why administrators of schools and centers for mental defectives should seriously consider certification by The American Psychiatric Association.

The magnitude of the problem of the mentally retarded is brought home by the fact that we have an estimated total of 1 to 5 million retarded individuals in our country. The influence of humane concepts has removed many prejudices concerning mental deficiency. However, our educational and economic systems are constructed on the requirements of conceptual cleverness. Individuals with less potential intellectual endowment go through life with a serious handicap. "Mental deficiency" and "feeble-mindedness" are terms used very much as "insanity" and "lunacy" were in the eighteenth and nineteenth centuries. However, through the efforts of modern psychiatry the terms "insanity" and "lunacy" have largely been eliminated from the medical vocabulary, although the courts of justice have retained the outmoded terminology and consider this the only basis for legal commitment of the mentally ill to a mental hospital.

We have been accustomed to recognizing 2 groups of persons who can and must be distinguished. One group consists of individuals so markedly deficient that they would stand out as defectives in any kind of human community. They are not only intellectually deficient but defective in every sphere of mentation. The other group is made up of persons whose limitations are definitely related to the standards of the culture which surrounds them. In a less complex civilization they would have no trouble in attaining and retaining equality of realizable ambitions. They can succeed in many ordinary

types of work. However, according to our standards, people of limited intelligence and schooling have low ratings in both remuneration and public esteem. The individuals of the second group are not truly feeble-minded. Their shortcoming is an inability to comply with the intellectual requirements and standards of society. Dr. Leo Kanner classifies the latter group as "intellectually inadequate."

The public supervision of the feeble-minded depends on several important factors which to this day remain largely unsolved. One of these is the definition of mental deficiency. While the method of psychometric measurement has proved valuable, much remains to be done to increase its effectiveness in clinical diagnosis. It is not so much the refinement of the tests themselves as the manner in which they are interpreted that seems to matter. Furthermore, as long as there is no scientific definition of intelligence or native capacity, the obtained measurements will always remain ambiguous in relation to mental deficiency.

Thus, in spite of mental tests and increased social organization, the scope of the problem of the mental defective can only be guessed at. At the present time I am afraid we are apt to be a little oversold on the so-called results of intelligence tests. As I see it, intelligence can be divided roughly into 3 types: the abstract type, the mechanical or performance type, and social intelligence. It is the latter that is the most important. It is impossible to say what the specific defect is and how it is transmitted. It will require the combined efforts of all institutions and research workers in this field to assemble the information from the entire field if we are ever to arrive at any satisfactory solution to this problem.

"A survey of patients with severe disorders of mentation indicates that we are dealing with an 'organic' brain syndrome in which the failure of mentation is due to factors that interfere with the proper functioning of the central nervous system." Though

<sup>1</sup> Read at the annual meeting of the American Association on Mental Defectives, Atlantic City, N. J., May 19, 1954.



the problems of individuals with mental deficiency are fundamentally of medical-biological origin, the approach of scientific research has been rightfully of the multidisciplinary type. This type of approach has been accepted in the past 20 years and it should continue if we are going to have a solution to the problem. At the present time we have merely improved diagnostic methods for the selection of cases to be studied, and various medical and psychological tests have been refined to a greater extent than ever before. Various new treatments of individual patients have been organized and various facilities such as electroencephalography and electromyography have been utilized for the study of cases. Indeed, valuable studies have been made in neurophysiology and neuropathology including studies in cerebral circulation; biochemical studies of nutrition and endocrine and metabolic relationships have added to a better understanding of certain types of deficiency states. All these advances of the last few years have a direct bearing upon the study of constitutional and environmental factors in mental deficiency.

It is hardly necessary for me to emphasize that there is an important consideration involved in the differential diagnosis between mental deficiency and mental retardation. The latter is caused by numerous organic disorders as well as environmental conditions and when the retarding factors are discovered early in life and removed, the child has a very good chance to return to normal intellectual capacity. To make a diagnosis of mental deficiency is a serious matter and it should never, as mentioned previously, be done on the basis of any single test.

It is obvious that diagnostic facilities and techniques are most important factors in the prognosis and treatment of such cases. In short, a school for retarded and defective children should fundamentally be a psychiatric medical center with highly trained multi-discipline staff members to assume the responsibility of proper diagnosis, treatment, and the training of those who are still salvageable for society. The school or center should be so well organized with professional personnel to run various departments as to enable the school or center to be approved for the care and treatment of patients as

well as for the training of professional personnel and the carrying out of research.

These are my reasons for advocating that every school and center for mental defectives be under the direction of a well-qualified psychiatrist-administrator who has been trained in this field. "The American Psychiatric Association has held from its beginning in 1844 that the chief executive officer of a mental hospital<sup>2</sup> should, in addition to the other qualifications he must have, be a physician adequately trained in the specialty of psychiatry. The Association regards as unsound, attempts to separate the 'administrative' from the 'medical' aspects of mental hospital operations, together with corollary proposals that physicians should confine their responsibility to the latter. The Association believes that all mental hospital operations bear a direct relationship to the therapeutic progress of patients, and accordingly that only a physician may assume total responsibility for them. Its position is set forth without prejudice to that large body of laymen who serve as skilled and indispensable executive assistants to the physician-administrators of the mental hospitals of the area covered by the membership of the American Psychiatric Association."

In 1951, a group of leading mental hospital administrators advised the Council of the Association that if, in their opinion, this position were to be maintained successfully, it was incumbent upon the Association to consider how mental hospital administration could be improved; how suitable recognition could be given to superintendents of experience and stature; how physicians could be certified as qualified in this field; and how this specialized area of medical practice could be made more attractive to young psychiatrists.

Council responded by authorizing the President to appoint an *ad hoc* committee to study these problems. The Committee was continued a second year by President Cameron. Through correspondence, conference, and questionnaires the Committee thoroughly investigated the questions of training

<sup>2</sup> A mental hospital is defined, for the purposes of this Committee, as any hospital, center, school, or other institution predominantly psychiatric in function.

standards and optimal qualifications for mental hospital administrators and methods of certifying them as qualified.

On the basis of this Committee's recommendations, the Council and members of the Association on May 6, 1953, approved the establishment of a permanent Committee on Certification of Mental Hospital Administrators. The members of the Committee were appointed shortly thereafter by the President.

*"Organization of the Committee.*—The Committee on Certification of Mental Hospital Administrators is composed of a Chairman and 9 members, 3 consultants, and a secretary. Each of the 9 members is appointed for 3 years in such a manner that 3 new members replace 3 former members each year. As with all standing committees of the Association, the members and consultants are appointed by the President. The chairman and the secretary are elected annually by the 9 members; both must be Fellows of the Association and not currently members of the Committee. The Committee meets and conducts examinations as needed at times and places announced in advance in the AMERICAN JOURNAL OF PSYCHIATRY and other professional journals.

*"General Requirements for Applicants.*—Each applicant for a certificate must establish that: (1) He is a physician licensed to practice medicine, and a graduate of a medical school acceptable to the Committee. (2) He is of acceptable ethical and professional standing. (3) He is at the time of application a Fellow of The American Psychiatric Association. Exception to this requirement may be made at the discretion of the Committee for good and sufficient reasons. (4) He has received adequate training in psychiatry, or neurology, or both, as a specialty of medicine.

"Certification by the American Board of Psychiatry and Neurology, Inc., or, in the case of Canadian applicants, by the Royal College of Physicians and Surgeons of Canada, as a specialist in psychiatry, or neurology, or both, is desirable but not required.

#### CLASSES OF APPLICANTS

*"Class I.*—Psychiatrists who were graduated from an approved school of medicine prior to June 30, 1938; who are Fellows of

The American Psychiatric Association, and are currently mental hospital administrators, or assistant mental hospital administrators, will not be held to the strict interpretation of the published requirements in formal graduate training. Psychiatrists who are Fellows of The American Psychiatric Association who are not currently mental hospital administrators, or assistant mental hospital administrators, but who have served a period of at least 3 years as mental hospital administrators, in the past, and who submit evidence satisfactory to the Committee will not be held to the strict interpretation of the published requirements in formal graduate training.

*"Class II.*—Psychiatrists who were graduated from an approved school of medicine prior to June 30, 1938, and who are Fellows of The American Psychiatric Association, but who are not currently mental hospital administrators, or assistant mental hospital administrators, but who, upon presentation of their credentials, indicate a minimum of 3 years' experience in the field of mental hospital administration may be admitted to the examination.

*"Class III.*—Psychiatrists who were graduated from an approved school of medicine during the period from June 30, 1938, to June 30, 1947, who are Fellows of The American Psychiatric Association, and who have had a minimum of 3 years' experience in the field of mental hospital administration, and have had other training and experience satisfactory to the Committee, may be admitted to the examination.

*"Class IV.*—Psychiatrists who were graduated from an approved school of medicine after June 30, 1947, who are Fellows of The American Psychiatric Association and who have had a minimum of 3 years' experience in the field of mental hospital administration, plus a minimum of one academic year of formal training, or its equivalent, in the various aspects of mental hospital administration of a kind and quality acceptable to this Committee, may be admitted to the examination.

#### EXAMINATIONS

"Dates and places of examinations will be determined by the Committee and will be

announced in publications available to all Fellows of The American Psychiatric Association. The place of such examinations will be determined by the geographical needs of the candidates. Although the purpose of this examination is to evaluate the qualifications of the candidate in mental hospital administration, it must not be forgotten that this medical discipline constitutes part of the broad field of psychiatry and neurology and of general medicine. The examinations will be of a type that no adequately trained person will fail, yet they will be sufficiently searching to enable the Committee to differentiate properly qualified mental hospital administrators from those who are not."

Detailed information for applicants can be found in the Rules and Regulations of The American Psychiatric Association Committee on Certification which may be obtained from the Executive Offices, C. N. Baganz, Secretary, Veterans Administration Hospital, Lyons, New Jersey.

It is my personal opinion that our mental hospitals and schools for defectives have been neglected to such an extent, and advances have been so meagre compared with other areas of our human life, that something

drastic must be done to make the general public conscious of our needs as places for more than custodial care. I am sure that this statement applies to most of the public agencies having charge of the mentally ill and the mentally retarded. The general hospitals throughout the country were in similar condition up to 1917 when the rating of hospitals then became based on a yardstick of standards which was established by the medical profession through its national organizations. A yardstick of standards has now been established for public mental hospitals. Within a short time we shall have approval of standards for private mental hospitals. I hope there will be organized a yardstick of standards for institutions and schools that care for mental defectives.

It is my suggestion that those who are Fellows of The American Psychiatric Association and have the qualifications as mentioned above apply for certification. In conclusion may I say that there is nothing personal against administrators who are not psychiatrists, and I am sure that an unqualified psychiatrist is certainly a worse administrator than a qualified layman who has had training in hospital and center administration.

## A STATISTICAL STUDY OF THE ADMISSION OF ALCOHOLIC PATIENTS TO A LARGE MENTAL HOSPITAL

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In view of the almost universal shortage of trained personnel in state hospitals, coupled with a similar shortage of bed space, many institutions have adopted the policy of refusing alcoholic patients admission for hospital care. In hospitals that are accepting them, the impression of most disciplines has been that the alcoholic is present in almost overwhelming numbers. A study was carried out at the Manteno State Hospital to determine what portion of the case load was actually alcoholic and some of the results obtained were so contrary to popular notion that it was decided to make these findings public. A survey of recent literature reveals a marked paucity of material relating to this particular aspect of alcoholism. This statistical study included such factors as sex, type of admission, diagnostic classification, and frequency of admission. The figures thus obtained pertain to a large mental hospital within commuting distance of a very large metropolitan area.

This investigation was prompted by the possibility that our policy of admitting alcoholic patients was causing too serious a drain on personnel and bed space, and was detracting from services which might be rendered to other classes of patients. The behavior of the alcoholic patient in the mental hospital setting where considerable freedom is the rule and their active participation in the industrial programs a major factor in treatment, has given rise to many misconceptions which are held by members of all disciplines. Because the alcoholic patient generally holds the industrial assignments which allow the greatest latitude, or require the greatest contact with the staff, it is generally believed that he is a more important problem in the hospital, in terms of numbers, than he actually is. This impression is further supported and augmented by the fact that the alcoholic in a single day may

see his attendant, his ward detail supervisor, his chaplain, psychiatrist, social worker, and other hospital officials in order to secure some particular favor or reach some desired objective. This situation is further magnified by the fact that the alcoholic does actually represent a very substantial proportion of the total number of admissions to the hospital.

The period of January 1948 through December 1952 was selected at random for study, and admissions during that time totaled 13,186. Of these 4,090 admissions were classified as some form of alcoholism; this amounts to approximately 30% of the total admissions. However, on any given day during this period, the number of patients, diagnosed as some form of alcoholism, actually in hospital residence, never amounted to more than 5% of the resident population of 7,000-8,000 patients. During this period, for the purpose of this study, limited data were collected on each alcoholic admission. Four thousand and ninety patients received a primary diagnosis of some form of alcoholism. Patients in whom the alcoholism might be secondary, i.e., manic depressive reaction with superimposed alcoholism, schizophrenic reaction with alcoholism, etc., were excluded from the study.

The following 4 categories were defined for each admission: (1) Sex. (2) Diagnostic Classification: (a) chronic alcoholism, without psychosis; (b) alcoholic psychosis with deterioration; (c) alcoholic psychosis, delirium tremens; (d) alcoholic psychosis, other types (Korsakow's Syndrome, etc). (3) Chronological admission for the patient, each admission being tabulated. This study was not made in terms of numbers of patients, therefore there might be 20 admissions for a single individual, but each admission would be recorded as the first, fifth, etc., as the case might be. (4) Type of Admission: (a) voluntary; (b) committed.

The cumulative percentage of male and female alcoholic admissions indicates that the vast majority of all admissions occurs

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<sup>2</sup> Formerly administrative aide, Manteno State Hospital.



within the first five admissions. Of the 4,090 alcoholics admitted to this hospital during the period under study 3,359 or 82% were in their fifth admission or less. The cumulative total through the tenth admissions was 3,758 or 92%. It is obvious that less than 20% of all alcoholics have experienced more than 5 admissions. The question may be raised, if there were 1,792 first admissions and only 751 second admissions, where did the 1,041 who failed to come into the hospital for the second time go? If we assume that some of them have been admitted to other hospitals, by like reasoning we can presume that alcoholics who had their first admission elsewhere would have had their second admission to Manteno. As has already been indicated, the drop in admissions is rapid through the tenth admission, and although there has been no follow-through on an individual basis, it does not appear unreasonable to assume that large numbers of alcoholics do not find their way back into mental hospitals. Whether these who have not returned have "recovered" or are subsisting on some other basis, cannot be determined by this study.

A statistical breakdown by major diagnostic categories is given in Table 1.

Significant differences appear between the male and female admissions: of the alcoholic psychoses (all forms) 58% were female and 41% male; with alcoholic deterioration, 42% female and 28% male.

An examination of the percentage distribution of major diagnostic classifications of successive alcoholic admissions indicates differences in the relative importance of a given classification at different points on the continuum. Although cases of delirium tremens are only a small proportion of the total number of admissions (128 or 4%), it is interesting to note that in the 5-year period there was only one beyond the 12th admis-

sion, and this occurred at the 16th. In fact, there were 120 of the 148 admissions for delirium tremens which occurred in the 1st and 2nd admissions. Table 2 tabulates the differences in the distribution of diagnostic classifications at the 1st, 5th, 10th, 15th and 20th admissions.

Although the percentage of delirium tremens admissions for male and female patients is exactly the same (4%), the distribution by admissions is significantly different. Among the male alcoholics, 107 or 72% were admitted in the first or second admissions, whereas the female distribution was more even and only 65% were admitted in a similar number of admissions.

The greatest number of admissions for a single individual during this 5-year period was 45 for a male alcoholic. On the other hand, there were no female alcoholic admissions beyond the 22nd. As might be expected, there is a large percentage of total female admissions during the first 5 admissions (89% between the 1st and 5th admissions), as compared with the male alcoholic admissions (81%).

Table 3 indicates the percentage distribution of major diagnostic classifications of female alcoholics at different admission points.

If it is presumed that admissions with psychosis represent a condition of greater severity than one without psychosis, and that there is a greater proportion of females admitted with psychosis than males, the percentage distribution between commitment and voluntary admissions should follow a similar pattern by sex, i.e., females should show a greater percentage of commitment admissions. This does occur: 19%

TABLE 1

## BREAKDOWN BY MAJOR DIAGNOSTIC CATEGORIES

	No. of patients	%
Without psychosis .....	2,311	53
With psychosis		
Alcoholic deterioration .....	1,341	33
Delirium tremens .....	148	4
Other types .....	390	10
Total .....	4,190	100%

TABLE 2

## PERCENTAGE DISTRIBUTION BY DIAGNOSTIC CLASSIFICATION ON ALL ALCOHOLIC ADMISSION 1/48 TO 12/52 AT THE 1ST, 5TH, 10TH, 15TH, AND 20TH ADMISSIONS

No. of adm.	Chr. alc. without psych.	Alc. psych. with deter.	Alc. psych., other types	Alc. psych., del. trem.
	%	%	%	%
1.....	54	27	14	5
5.....	71	23	5	1
10.....	67	32	—	1
15.....	58	42	—	—
20.....	50	42	8	—



TABLE 3

PERCENTAGE DISTRIBUTION BY DIAGNOSTIC CLASSIFICATION, FEMALE ALCOHOLICS 1/48 TO 12/52 AT THE 1ST, 3RD, 6TH, 9TH, AND 10TH ADMISSIONS

No. of adm.	Chr. alc. without psych.	Alc. psych. with deter.	Alc. psych., other types	Alc. psych., del. trem.
	%	%	%	%
1.....	40	43	14	3
3.....	34	53	10	3
6.....	70	18	6	6
9.....	66	17	—	17
10.....	100	—	—	—

of all female alcoholic admissions compared with 44% of the males were voluntary. It is interesting to note that, contrary to popular notion there is a 64-40 split between commitment and voluntary admissions on an over-all basis, in favor of commitment. In other words, of the 4,090 admissions, 2,460 entered via commitment proceedings, whereas 1,630 entered of their own volition. There is a significant increase in the percentage of voluntary admission as the number of admissions increases. This holds true for both sexes and is illustrated in Table 4.

TABLE 4

PERCENTAGE DISTRIBUTION OF VOLUNTARY AND COMMITMENT ADMISSIONS FOR MALE AND FEMALE ADMISSIONS

	Male		Female	
	Vol. %	Com. %	Vol. %	Com. %
1.....	32	68	11	89
2.....	54	46	24	76
5.....	63	37	33	67
7.....	55	45	50	50
9.....	62	38	*	*
11.....	64	36		
15.....	56	44		
17.....	91	9		
19.....	71	29		
21.....	67	33		

\* Number of admissions too small to be significant.

## SUMMARY

1. Male alcoholic admissions outnumber females 4 to 1.

2. One of each 4 male alcoholic admissions comes in voluntarily. One of each 8 female alcoholic admissions does so.

3. Sixty-one per cent of all male alcoholics were classified "with psychosis"; 76% of all female alcoholics were so classified.

4. The percentage of voluntary admissions for both sexes increases significantly with the frequency of admission.

5. The percentage of patients classified "with psychosis" increases in voluntary male admissions with the frequency of admission: 20-26-69-50-86%. The percentage of patients diagnosed "with psychosis" remains fairly stable in committed male admissions: 69-71-50-66-66%. The percentage of patients classified "with psychosis" remains uniformly high in all female admissions: 65 to 90%.

6. Of 32 admissions classified "acute hallucinosis" (male and female), only 2 were voluntary.

7. Of 21 patients classified "delirium tremens" (male and female), only 1 was voluntary.

8. Of 43 patients classified "with other forms of alcoholic psychosis" (chiefly pathological intoxication), only 3 were voluntary.

9. Of 245 patients classified "psychosis, alcoholic deterioration" (male and female), 42 were voluntary admissions.

10. Of 184 patients classified "without psychosis" (male and female), 63 were voluntary.

## CONCLUSION

The alcoholic patient creates a marked problem insofar as he increases the case-load of the admitting services by approximately 30%. However, in terms of the total bed capacity of the institution, at no time does he occupy more than 5% of all hospital beds.

Four male alcoholics are admitted to each female alcoholic.

There is a significant difference in the sexes as to the type of admission. Approximately twice as many males enter voluntarily as do females.

There is a significantly higher percentage classified "with psychosis" among female alcoholics.

The percentage of voluntary admissions increases with the frequency of admission, in both sexes.

The percentage of voluntary admissions in such disorders as delirium tremens, acute hallucinosis, etc. is extremely low.

## PSEUDOREVERSIBILITY OF CATATONIC STUPOR<sup>1</sup>

ERWIN W. STRAUS, M.D., AND RICHARD M. GRIFFITH, PH.D.,<sup>2</sup> LEXINGTON, KY.

Catatonia was presented by Kahlbaum in 1874 as a nosological entity, a brain disease of a specific kind (11). Kahlbaum, therefore, did not confine himself to a mere description of those symptoms which we still enumerate under the heading of a catatonic type of schizophrenic reaction; he went further and tried to give an explanation of the catatonic disturbances. His theory is embodied in the title of his book, *Katatonie oder das Spannungs-Irresein*. While *Katatonie* has been accepted as a psychiatric term, the second part of the title is not easily translated. The word *Spannungs-Irresein* may be best represented—preserving the style of the period—through “tension-” or “tone-vesania.” As these terms reflect the psychiatric tendencies prevailing in Kahlbaum’s epoch, a few words about the historical background are appropriate.

We must not forget that the struggle between somatogenic and psychogenic theories of psychoses extends far into the past. It is intimately related to the special topic of psychiatry. While medicine in general is concerned with man as a living organism and the disturbances of its biological functions, the basic theme of psychiatry is man as a citizen, or, more accurately, man failing as a citizen—man with whom no further communication is possible, who has become irresponsible and incompetent, whose civic rights may be suspended, who may be forced if not into treatment at least into custody by judge and jury. The loss of outer freedom appears to be necessitated by a preceding loss of inner freedom. It is therefore small wonder that one group of physicians should ascribe this loss of freedom to the soul and its passions, the other to the body and its disturbances. Today old arguments, of course with characteristic variations, are repeated in the discussion between the dynamic and the biological schools of psychiatry. Toward the middle

of the last century the protracted fight appeared to be decided in favor of the somatists. Griesinger, in line with Rush, Combe, Voisin, Friedreich, and others, gave the terse formulation: *Mental diseases are brain diseases*. This thesis, far ahead of the knowledge of details, presented in a nutshell a program with no small demands on future research. It asked for a system of clinical syndromes or entities, related to the still unborn physiology of the brain, combined with the not yet existing pathology of the nervous system, and sustained by some kind of anticipated physiological psychology. With Broca’s observations, Hitzig’s experiments and Fechner’s psychophysics, decisive steps had been made, first in the field of basic sciences, to substantiate Griesinger’s ideas. Kahlbaum and his pupil Hecker (8), who gave the first description of hebephrenia, tried to enact on their part the clinical section of that extensive plan. In their attempt to single out specific nosological entities they used general paresis as their model, just as Kraepelin did later on. General paresis was impressive to psychiatrists a hundred years ago because in it there was found—at least once in the field of psychiatry—a disease with a specific etiology,<sup>3</sup> symptomatology, course, and pathology. The fascination must have been very strong indeed, for Kahlbaum adhered very closely to the pattern established for the interpretation of general paresis.

When Bayle (1822) (1), Delaye (1824) (5), and Calmeil (1826) (3), described the symptomatology and macroscopic pathology of general paresis, they shared the common psychiatric view that all psychoses followed the same course, running through 4 or 5 stages of vesania: mania, melancholia, delirium, dementia. The term general paralysis was used not to designate an impairment of

<sup>1</sup> Read at the 110th annual meeting of The American Psychiatric Association, St. Louis, Mo., May 3-7, 1954.

<sup>2</sup> From the Veterans Administration Hospital, Lexington, Ky.

<sup>3</sup> The French authors who gave the first description of general paresis had not come to consider syphilis as a possible cause of paresis. Years went by until in 1857 Esmarch and Jessen pointed out this relationship (6). In a short time their hypothesis gained wide though not universal approval.

mental faculties but to indicate a paresis of all motor functions in cases of mental disease. Delaye(5) entitled his paper "Considerations about a Kind of Paralysis which Affects Especially the Insane." (*Considérations sur une espèce de paralysie qui affecte particulièrement les aliénés.*) In other words, they assumed a combination of 2 syndromes, a psychosis combined with a general paralysis.

Kahlbaum used the same scheme. He declared(11):

Catonia is a brain disease, running in cycles, in which the mental symptoms present in sequence the picture of melancholia, mania, stupor, confusion, and finally dementia; besides these mental symptoms—one or another of these five stages could be missing—there are found as essential symptoms disorders in the motor part of the nervous system with the general character of spasms (11) [translation ours].

He described incomplete contractions, epileptiform and choreiform spasms; he compared verberation—a term coined by Kahlbaum—with clonic spasms, mutism with tonic spasms. To him speech disorders appeared to be a result of coordinated spasms of the speech pathways. In short, Kahlbaum described catatonic behavior as presenting a motor disturbance; akinetic and hyperkinetic movements, catalepsy and waxy flexibility, stupor and excitement, mannerisms and stereotypies are neurological symptoms.

Kahlbaum's tenets were soon accepted in their descriptive parts; his theoretical attitude, however, did not go long unchallenged. Bleuler, to mention only one outstanding authority, insisted that rigidity, catalepsy, and stupor are of psychic origin(2). Dynamic psychiatry was inclined to follow Bleuler. Yet the observations made later on in the study of epidemic encephalitis and of the extrapyramidal motor system gave new impetus to a physiological theory of catatonia. Kleist tried to give an exact topology of catatonia(12). DeJong believed, with some vacillation, that he could reproduce catatonia with bulbocapnine(4). Strecker and Ebaugh mentioned that an extract of the pineal glands produced a similar effect(15). Others claimed to have found anomalies of tone or action potentials; some assumed a tone fixation of muscle without action current; the similarity to shortening and length-

ening reactions in decerebration was pointed out. Ransom(14), and later Gellhorn(7), related catatonic manifestations to cortico-hypothalamic disturbances. Hill reported anomalies of EEG in catatonia(9).

While DeJong and Baruk used drugs to produce catatonic-like disturbances in normal animals(4), many of us have used sodium amytal or carbon dioxide to reduce the catatonic stupor. Both observations—the pharmacological production of catatonic stupor and its reduction—seem to confirm Kahlbaum's idea that catatonic symptoms are directly related to disturbances of certain motor elements or segments of the nervous system. Nielson and Thompson, for instance, think it most likely that "this salt [sodium amytal] alters the cell permeability of neurons. . . . Nerve cell membranes become more permeable," and because of this "in catatonic schizophrenia the stuporous patient usually awakens after the injection of about 5 grains of the drug(13)." This sounds plain and simple; but perhaps matters are somewhat more complex. Although the common clinical experience of sudden, unpredictable, transitory changes from stupor to action need not contradict this or similar assumptions it warns us not to accept them in haste. That sodium amytal should awaken a stuporous patient is certainly in sharp contrast with its usual narcotic effect. We may well wonder, therefore, whether the stuporous patient is actually in a sleep-like condition from which he could awake.

Whenever one tries to give an explanation he must make sure of the facts he intends to explain. Catatonic behavior is obtrusive, it promptly fulfills our requirements for reliable diagnostic symptoms. Furthermore, catatonic patients, because of their excitement or stupor, are usually seen under the limiting conditions of a disturbed ward. Contented for such reasons with the global aspect of catatonia, we are prone to overlook many important details. We realized this when we began to study catatonic expression in our photographic laboratory.

Not satisfied with casual observations on the ward, we tested the responsiveness of catatonic patients to varying situations more systematically, only to discover a surprising regularity instead of capricious reaction. Our

experiments, we believe, confirm with conclusive evidence the opinion that the catatonic symptoms are manifestations of a disturbance of action and not due to a direct impairment of the motorium.

From our film library we have assembled some selections to illustrate the points under discussion. Photographic recording, superior in many but not in all respects to direct observation, offers the opportunity of preserving evanescent behavior for repeated and communal inspection.

The first patient, Tim, is seen the day after his admission to the hospital.<sup>4</sup> He is waiting just outside the admission staff room. This anteroom, somewhat remote from the general hospital traffic, is an environment less artificial than the ward. As we wanted a record under the most natural conditions possible, we let things go as they would.

On occasions like this we are quick to use the labels "stupor" and "withdrawal" and thereby may be blinded by our own words. This man, notwithstanding his frozen attitude and muteness, is not shut off from his environment; he segregates himself as a nonparticipant. If withdrawal means separation and severance from all connecting avenues, he is not withdrawn, in spite of his stupor, but vigilant. Catatonic stupor should not be interpreted as a sleep-like condition; this patient, though stuporous, is really alert. He keeps his eyes on the scene of events. While he permits a fly to crawl over his face without so much as twitching a muscle (Fig. 1), he responds with a suppressed smile to some remark of a passerby. At one point he throws himself back into position, as if he had just caught himself relaxing (Fig. 2). His rigid gaze finally yields to excessive blinking.

In the following section the same patient is seen at lunch time in the doctor's office. Seated behind a table he retains his rigid posture, ignoring the food. Waxy flexibility is easily demonstrated; his right cataleptic arm remains in position (Figs. 3, 4) as the sodium amytal injection is started. The needle still in the vein, patient begins to

smack his lips, to grin, and to talk. "Keep it coming, Doc," were his first words (Fig. 5). A few grains of the drug sufficed to turn him from one who refused food into a voracious eater (Fig. 6). There certainly had been no lack of hunger, no metabolic disturbance, no condition resembling hibernation but plainly a rejection of food. Obviously the patient is overcome by the typical soporific effect of sodium amytal; in his drowsiness, his guard down, he succumbs to the temptation of food. Now hunger asserts itself.

The third section shows the patient a few hours later in our photo laboratory. The effect of the sodium amytal has abated, the patient has relapsed into stupor (Figs. 7, 8). Once again we are able to turn immobility into lively and cooperative action. This time no sodium amytal, carbon dioxide, or any other drug was needed. A device as simple as ball-playing proved sufficient (Figs. 16, 17). Without hesitation the patient participates in the game; he no longer appears stiff, his motions are fluent, expansive, well coordinated. Apparently he enjoys the situation.

We could easily duplicate—and triplicate—this observation. We have in our film archives many other samples of catatonic behavior, in complete agreement with this one. In fact we have films where the sudden transition from stupor to fluent motions is still more striking, as will be seen in the following "shorts."

There is method in this madness. The change from stupor to action is not accidental but follows certain rules. Some situations are without effect, others produce a change with great regularity. Among the situations tried in our experiments the first in order is ball-playing where the patients—not always and not all but most of them and most of the time—become responsive and cooperative. Some react freely, some in a clownish manner, some with inappropriate vigor and occasionally with aggressiveness (Figs. 20, 21). But, again, in the great majority action is well coordinated with all the typical and familiar synergies and with a total surrender to the play. The start is often slow (Fig. 18). It may take several attempts before a patient catches on and several more to make him enter the game with some enthusiasm (Fig. 19). The initiative always

<sup>4</sup> The following section of the paper was written to be accompanied by a motion picture film. Single frames from the film have been enlarged for Plates I and II.





Enlargements of frames from 16 mm motion picture films showing 3 catatonic patients: A. Tim: 1. During the week of admission (1-8, 16-17). In the anteroom (1-2); at lunch time (3-6); under sodium amytal (5-6); in the laboratory, same afternoon (7-8, 16-17). 2. Two months later (9, 13-15). B. Rob: Before (10), during (18-19), after (11) playing ball. C. Tom: Before ball playing (12); playing ball (20-21); momentary relapse into catatonic attitude between throws (22). (Photos by Medical Illustration Laboratory.)





has to be with the examiner. A ball placed near the patient, or even directly in his hand, has no effect whatsoever.

In some cases, at the end of a provocative situation, the patients immediately or after a very short while return to their stupor (Fig. 11). Examining our films carefully, we found that even during the short intervals between throwing a ball and catching it some patients show conation toward a relapse into stupor (Fig. 22). Sometimes the relaxation lasts for a considerable time once the spell has been broken, but always the patient sinks back into stupor. The power of ball-playing need not be exhausted with one responsive reaction; during the same laboratory session the patient may participate in the play for a second time and relapse for a second time.

With a regularity corresponding somewhat to the breaking of stupor we were also able to produce it (Figs. 7, 8). Procedure and results resembled those in testing waxy flexibility. Obviously, catalepsy is not a mere motor manifestation but is related to the total experience of the patient; how he attacks objects and how he dwells in his own body. Waxy flexibility would appear to be arrested action rather than arrested motion. Catatonic behavior as a motor expression corresponds to the schizophrenic experience of the world. It expresses no less the patient's estrangement from his own corporeal existence.

Our rheoscopic studies permit us to do away with the assumption that due to a change of tone stuporous patients can and do remain in frozen attitudes without visible signs of effort and exhaustion. The last part of the film shows Tim, our first patient, 2 months later, more catatonic than ever. He sits down in the laboratory, staring at the camera. The eyes are motionless, but the gaze is attentive (Fig. 9). A smile softening the mute lips betrays the patient's comprehension and grasp of the situation when a harmless trick is played on him. We ask the patient to get up; we lift his right arm to the horizontal; it remains in position (Fig. 13). In the photographic record one can observe how the patient after a short while glides into a more comfortable position, putting his left foot forward and bending his trunk to the left side to counterbalance the

weight of the lifted right arm. The abducted arm begins to shake; then gradually it is lowered, the hand sinks down, elbow and wrist are bent (Fig. 14).

Perhaps the least flexible of catatonic attitudes is the well-known stance kept seemingly unchanged for hours. But even here our films reveal signs of adaptation. We do well to remember that nonpsychotic persons also learn to stand upright nearly motionless for a long time. In Hitler's Germany sentinels had to stand immobile, resembling a stone monument more than a human being. Cataleptic positions must not be interpreted as abnormal duration of innervation but as perseveration of attitude, perhaps as an incapacity to initiate any change.

If there is an increase of tone in the stuporous patient, the "stupor" is certainly distributed quite unevenly; it is never complete; the distribution does not follow any neurological pattern. An attempt to engage our patient in hand-wrestling resulted in a bizarre combination of passivity with resistance. The patient surrenders to the action of the examiner. He surrenders—but only partially. He does not start any counter-movement by himself; at the same time he resists; he is not completely passive. He allows himself to be pulled over into an extreme position, yet he does not yield. He skillfully frustrates the efforts of his opponent. Finally, using the other's hand as a kind of support, he balances on his right toes, his trunk bent forward and his left leg extended in the axis of the trunk, approaching the horizontal (Fig. 15), suggesting a somewhat unorthodox Degas. Whatever the artistic deficiencies, the dancing act makes it clear that there is no lack of action currents in this kind of "attitudinizing."

These pictures taken together leave no doubt that the motor system in the proper sense is not disturbed in the catatonic. These patients are not immobilized in the panzer of their musculature but hold themselves immobile. There is no irreducible increase of tone as in patients with paralysis agitans or in a pallidum syndrome. If this were so, the patient could not change his attitude from one moment to the next, from a stuporous, negativistic posture to well-coordinated movements and back to frozen attitudes with mannerisms.

Neurological examinations in the cases presented here were negative as were the EEG's which showed but occasional insignificant deviations, the same as found in many noncatatonic cases.

Our experiments, while they help to decide the controversy about the nature of catatonic motor disturbances, are a beginning rather than an end of research in this line. They present many new problems. First of all we would like to know why the catatonic patient responds to ball-playing, why this situation produces a change of attitude comparable, within limits, to the effect of sodium amytal or carbon dioxide. "Regression"? Neither H. Jackson's concept of dissolution of functions nor Freud's idea of a return to earlier stages of libidinal development is applicable. Perhaps the answer may be found in the observation itself. We prompted the catatonic patient to participate in playing, in playing ball. Both factors count. Ball-playing is communication but communication at a distance, and, as play without rules and aims, it is a communication and partnership without obligations and consequences. There is something more to be said. In playing, the catatonic patient responds to a specific situation, but this situation gains its meaning primarily in relation to and in contrast with the permanent situation of catatonia. We cannot expect to explain the transitory reversal fully without understanding catatonia itself.

The proposition that catatonic symptoms are manifestations of a disturbance of action rather than an impairment of motility makes sense only if there is an essential difference between motion and action, between the means of transportation and the travel, or—if you will—between the physiological and psychological aspects of motion.

Those who interpret catatonic behavior as a manifestation of a motor disturbance have chosen the more comfortable route; they do not have to explain how the many varieties of catatonic symptoms are related to each other. They may try to give such an explanation, but they need not; they could be satisfied with the assumption that the same, still-unknown agent affects a number of suborgans of the brain, be it the cortex, the pallidum, the putamen, the caudate, the hypothalamus, or other locus. However, if one

assumes a basic disturbance of activity, he must go further and give an account of the inner relations of all catatonic symptoms. Therefore we shall have to answer the question: *How are the manifold catatonic motor symptoms related to each other and how to the rest of the catatonic syndrome?* This presents a still wider problem: *How are the catatonic symptoms related to schizophrenic manifestations in general?*

The answer to these questions may be facilitated if we consider the possibility that the schizophrenic patient does not live in a space or a world in common with us and that, therefore, his behavior should not be understood as an eccentric mode of action still related to the structure of space familiar to us but as corresponding to the structure of the peculiar world in which he lives. The next question to be answered is: *What is the structure of the world in which the catatonic patient exists?* or formulated differently: *What is the schizophrenic's mode of being in the world?*

Closely related to these questions is the following: *Does the schizophrenic experience his own body like a normal person, or is his experience of his own body changed in catatonia—and if so, in what way?*

All this leads to the last 2 questions: *Can we describe a (or the) fundamental disorder of schizophrenic experience? Can we relate it to one biological disturbance?*

We have found rheoscopic studies supplementing clinical experience and general theoretical considerations a promising tool for answering this array of questions. The method permits, within limits, an experimental approach to problems in psychopathology, providing evidence of facts and thereby helping to decide debatable opinions.

The experimental demonstration of the reversibility of catatonic stupor establishes a fact not unknown to the clinical psychiatrist; it reminds us that even in severe cases the modes of schizophrenic responses need not be coerced to one. Even the severe schizophrenic may still have a variety of reactions at his disposal—but with all of them he remains schizophrenic. The pseudoreversibility warns us not to overrate prognostically minor changes in the behavior of catatonic patients.

Evidence that the disturbance is psychomotor rather than motor, an impairment

of action rather than of motion, does not necessarily imply a psychogenic origin of catatonia. In fact, seen in its full context, catatonic behavior leads to the opposite conclusion—not revealing defenses originating from unconscious or conscious biographical experience in a world common to all of us but pointing, in its radical estrangement, to biological changes which transform the mode of being-in-the-world beyond the reach of normal or abnormal purpose and motivation.

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## PSYCHIATRIC TEACHING IN AN INTEGRATED MEDICAL CURRICULUM<sup>1</sup>

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The brilliant biologist and physician of the last century, Thomas Huxley (1), wrote:

Education is the instruction of the intellect in the laws of nature, under which name I include not merely things and their forces, but men and their ways.

This was written in 1868; at the time a new scientific fervor was taking hold of the minds of men in medicine. The great Virchow was then building the foundation upon which modern medical science was to grow and develop. As medicine advanced, the votaries of the wonderful new sciences began to believe that with more imaginative research designs and sharper investigative tools, all functions of the personality could be explained on a physicochemical basis (2). Unfortunately, there followed in the wake of these notable achievements a deplorable neglect of the study of "men and their ways." The patient as a person and his relationship to the physician, which accounted for most of the therapeutic triumphs of the old family doctor, were permitted to go by the boards.

Leaders in American medicine have repeatedly told us that the patient, along with the medical student, must be brought back into better perspective. In the years following World War II there has been a real quickening of interest in medical education. Many schools in this country have critically reevaluated their curricula, and some have already initiated new experimental programs.

Soon after the war, the faculty of the School of Medicine of Western Reserve University carefully reexamined its own goals in medical education. Many members of the faculty seriously questioned whether the school was adequately training the students to keep abreast of the rapid progress in medical science. The practice of medicine it-

self is undergoing profound changes. Many of the diseases which at one time constituted the major concern of the house officers are now rarely seen on the wards. With this accelerated pace of medical progress, it is apparent that the faculty can no longer teach the student all the facts and techniques today which will meet his needs tomorrow.

Accordingly, the dean, Dr. Joseph T. Wearn, appointed a committee on medical education, which was composed of the head of each department or his representative. After a very intensive study by this committee, the broad aims and objectives for a new educational program were laid down. The preliminary work, requiring tens of thousands of man hours, involved over 150 faculty members sitting on many committees. Although the planning was carried out in a truly democratic spirit, no one would assume that the democratic way of life is always conducive to peace and quiet. Things are not always serene when a psychiatrist sits down with a surgeon, an internist, an obstetrician, and other colleagues to work on a program for teaching the importance of emotional factors in medicine and then attempts to enlist their cooperation in teaching it.

In the fall of 1952 the first class was launched on a completely reoriented medical curriculum. Teaching is done in a correlated manner with all departmental barriers removed. Since complete coverage is impossible, the curriculum emphasizes basic principles, scientific evaluation of the data, the understanding of the patient as a person and as a member of society, and the development of sound attitudes within the student. The student himself is treated as a maturing individual and is given increasing responsibility for his own education during the 4 years.

The program for the first academic year deals with the normal and presents the fundamental principles concerning the biological and psychological nature of man in terms of structure, function, growth, behavior, and the effects of the environment upon him. The

<sup>1</sup> Read at the 110th annual meeting of The American Psychiatric Association, St. Louis, Mo., May 3-7, 1954.

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program centers about 4 main areas: (1) basic science; (2) clinical science; (3) the execution of an original project; and, strange as it may seem in medical school, (4) free time.

The basic sciences, which constitute the major part of the first year, are taught in a correlated manner rather than in isolated courses by separate departments. An attempt is made to integrate structure and function by dealing with the pertinent anatomy, physiology, and biochemistry. Faculty members from various disciplines make up the subject committees responsible for the particular subject material and methods of presentation. Since the separate disciplines of anatomy, biochemistry, physiology, and microbiology are taught in this way, a new multidiscipline laboratory has been built in which each student is provided with a laboratory unit of his own. This he uses throughout the year, and the faculty comes to the student to instruct him in the various procedures.

For the original research project the student is required to select his own project, to develop his approach and methods, make his experimental observations, and then analyze his own data. Such training is essential if the student is to develop scientific critique which will enable him to keep abreast of advances throughout his future professional life.

One and one-half days per week are devoted to free time. During this period, the student has absolutely no assigned work. He is at liberty to follow his interests into whatever areas they may lead him, whether it be biochemistry, advanced mathematics, or a ball game.

The clinical science section meets 3 hours per week and is designed as an introduction to the study of man as an individual and as a member of the family in society. It was felt that during the first year the student should learn some of the basic concepts of human personality. The clinical science subject committee recommended that:

The student should know broadly that the total personality is the resultant of inherited endowment as it is modified by the many dynamic forces of the environment, and that the most important factor in the individual's early environment is his relationship with the mother, father and siblings. The whole family constellation is affected not only by illness, but by numerous social, economic, and emotional

factors, which are often significant in the prevention, diagnosis and treatment of illnesses.

Students in the past have complained that one of the great obstacles encountered in studying basic concepts of human personality has been the lack of opportunities for them to make their own observations. The student has always been expected to make these observations in the basic sciences, but has been denied the same privilege in the clinical sciences. It was felt, therefore, that he should have a laboratory, so to speak, where he can observe people who are alive, growing, and reacting to the exigencies of life.

To this end each first year student is assigned a patient during the seventh month of her pregnancy. He interviews her in the Family Clinic, which was especially set up for him, then visits her in the home and follows her through the delivery. After this, he sees her each month in her home. The emotional and physical growth of the infant is observed at regular visits in the Family Clinic, under the guidance of a pediatrician. The student makes a written note of the physical and emotional development of the infant and this becomes an integral part of the patient's record in the Family Clinic. By doing this, the student can readily see what the advent of a new infant means to a family. Through his own observations he can appreciate the insidious ways in which a family is frequently caught up in a crosscurrent of psychological, economic, and cultural forces, and how these factors affect the health of individuals in the community. There is little theory about this. He knows what happens to his patient as she meets the problems of everyday living.

Here then is the beginning of the patient-physician relationship for the student. It stimulates his interest in the study of the basic sciences by seeing the integral part they play in the care of the patient. His enthusiasm for learning about people is maintained. This experience helps the student to realize that in modern medicine the physician must work in cooperation with his colleagues from the various medical and ancillary disciplines—nurses, social workers, and representatives from community health and welfare agencies.

This introduction of the student to the pa-

tient occurs at the end of the first month of the school year following the period of orientation. Each week, a group of 10 students, one from each of the preceptorial groups, meet their patients. By Christmas, all have been introduced to their patients, and some of the first babies have been delivered. Although the medical student may help with making appointments, clarifying to the patient the instructions of the doctor in the clinic, he in no way assumes responsibility for medical care. The patient clearly understands this, but the student comes to appreciate what his personal relationship means to his patient. He is told at the beginning that he is a member of a team who is giving care to his patient.

These expectant mothers are carefully selected by the social worker. They are free from organic and gross social pathology and show no obvious psychopathology. Members of the social service department of University Hospitals discuss the social service summaries with the students before they meet their patients. Suggestions are given concerning the first interview, and, above all, the student is encouraged to get really acquainted with this individual who is facing a very important health problem.

Immediately after the initial interview, the obstetrical resident conducts the routine examination of the patient, with the student standing by his side. More often than not he is a bit tremulous as he is shown how to palpate the abdomen and listen to fetal heart sounds. This is the student's big moment. Here is something alive, developing, the beginning of a life—the beginning of a new career for him.

Classroom material consists of lectures, movies, presentation of patients, and panel discussions. It is arranged to guide the student and increase his understanding of what he is observing and studying. The first month is devoted to orientation. Interviewing techniques as methods for obtaining data are discussed together with some of the fundamental aspects of the patient-physician relationship.

As the students begin to meet their patients, a member of the obstetrical department discusses the biology of conception and emphasizes the importance of understanding

the expectant mother's emotional reactions as well as the physiochemical changes which are taking place. The biological dependency of the infant and what this means to the psychological development of man is considered next. The manner in which the needs of the infant relate it to the environment naturally leads to a discussion of the importance of the mother-child relationship and the significance of the emotional reaction of the mother to the pregnancy and to her role as a mother. Attention is then directed to the role of the father, other siblings, and the child's keen sensitivity to the changing moods of the parents, the occurrence of illnesses, death, and separation in the family.

After the Christmas holidays, the student is introduced to the physical examination as a method of obtaining data. He learns that this is a procedure which must be performed with the utmost care and with the full realization that the patient may react to it in such a way as to distort the true picture. The physical examination is taught in a correlated manner with the basic science presentation of the nervous, respiratory, cardiovascular, and digestive systems.

After the student has had an opportunity to follow his infant, a lecture is given concerning the instinctual forces which are the source from which personality derives its energy for growth and function. The mother is the object in the infant's environment which has to do with the gratification or the frustration of the infant's instinctual needs. Lectures and case presentations are centered around feeding and toilet training. It is emphasized that problems arise in normal growth and development, and the way they are met by the parent has much to do with the future emotional growth of the individual.

This material is presented not as psychiatry, or pediatrics, or obstetrics, but as an integrated approach to the study of man, his normal structure, function, and growth.

It is quite understandable that the student should enter into this new patient relationship with misgivings. In the past the faculty has been quite unmindful of the mounting anxiety of the student, except as some maladjusted instructor has referred to it with icy derision. Instead of the wish to be a doctor

being utilized in the educational process, the student has been permitted to welter around in his own bewilderment and to build defenses which have often dulled his sensitivity and, thereby, tarnished the very quality which is the *sine qua non* of a fine physician. He has often been forced to conceal his anxiety behind history outlines and stethoscopes, and as a result, never learned how to deal with his own feelings of inadequacy and insecurity. Often he denies them, and then unwittingly does something to a patient for the sole purpose of allaying the gnawing feelings of frustration which assail him.

To help the student with the study of the patient, as well as to appreciate the wealth of feelings which he himself brings to this relationship, a preceptorial system was developed. One preceptor, serving as a colleague, advisor, and friend, is assigned to a group of 8 students with whom he continues throughout the year. They meet for a 1-hour conference after the classroom exercise Tuesday morning and for an additional hour Saturday morning. After each student meets his patient, he reports to his colleagues in his group and tells what he has learned about her and how he has felt while going about it. He may discuss any questions he desires; no subject is barred.

Much of the success of the clinical science program rests upon this relationship with the preceptors. They are selected from the departments of medicine, surgery, obstetrics, pediatrics, psychiatry, and pharmacology. In faculty rank they range from full professors to instructors. They are chosen in this manner so that the student may see that the faculty is really interested in correlation, regardless of age or medical discipline. Among other things, the preceptor gives the student a feeling of being accepted as a colleague, and with this goes the feeling of approval for what he is doing.

At the end of the year the student writes up the history of the patient and her family and files it as part of the regular record in the office of the Family Clinic, where he may refer to it next year.

The second year began in September 1953 and followed the broad aims and philosophy of the program begun in the first year. The immediate aim of the second year, however,

is to develop in the student an understanding of those abnormal conditions which are classified as disease and the factors which influence the occurrence of the abnormality and interfere with the individual's adjustment to his environment. The patient and the infant were followed by the student throughout the second year. As part of the clinical science program in the second year, the student went to the medical ward where he interviewed a patient and wrote up a complete history and did a complete physical examination. The patient was one who had a disease process which was being studied in the basic sciences. This exercise was carried out under the supervision of a preceptor. Psychiatric lectures were given as part of the subject committee material in the basic sciences. For example, delirious reactions were discussed along with pneumonia. The reaction of the child to hospitalization was brought out in relation to rheumatic fever. The emotional stress of the patient with a chronic illness was presented in correlation with tuberculosis. Psychiatric lectures centering about various psychotic reactions were also given.

The third year of the new curriculum will begin in September 1954 and will complete the studies in an integrated manner of diseases of organ systems which was begun in the second year. The time given over to work in the clinics and wards will be increased to more than one-half of the scheduled time.

The fourth year will begin in 1955 and will provide the student with full-time clinical experience to increase the knowledge and skills related to the patient, which he acquired in the first 3 years. Some correlated work in the basic sciences is being planned as part of the fourth year program.

The interest and enthusiasm of the students and the tremendous sacrifices made by numerous members of the faculty lead one to believe that this program does have much to offer. The expectant mother, who was rushed to the delivery room and breathlessly asked the obstetricians where her doctor was, shows how much the physicians-in-training have contributed to their patients.

This is an experiment in medical education. The faculty realizes that it must remain sensitive to the direction of medical progress,

to improvements in educational methods and to the needs of an ever-changing society. Because there is change in the teaching, it cannot be assumed necessarily that there is progress. The program is being evaluated critically and continuously. Sitting with 5 of the 10 preceptorial groups is a nonparticipating, skilled observer, who does nothing except record what is said and done in an effort to study changes in attitudes which grow out of the student's experience and the interplay of forces within the group. We recognize the danger of our own bias in trying to evaluate the program and have invited groups outside the medical faculty to help with its evaluation.

The program was designed to produce an intellectual atmosphere in which the medical student may mature into an understand-

ing physician with sound attitudes, capable of independent thought and action, whether in the basic sciences or concerning the problems of his patient. It is hoped that it will be a basic education which will prepare the physician for continued study after graduation, be he family physician, specialist, teacher, or investigator. The late Dr. William Welch, of Johns Hopkins, voiced the aim of medical education very eloquently when he said(3),

And above all, put him in a position to carry on the education which he has only begun in medical school . . . through the remainder of his life.

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## SOME ASPECTS OF JAPANESE PSYCHIATRY

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It is a great honor to be invited to your convention to deliver a speech on Japanese psychiatry. When Major Yessler told me about this invitation early in April, I was hesitant to accept it, because I knew I was not well qualified to say anything definite about Japanese psychiatry. I came only recently to psychiatry, that is, in 1950, after 7 years' experience in medicine including 3 years' service in the Japanese Army. And since I was in the United States for psychiatric training from 1950 to 1952, I have actually been with Japanese psychiatry for less than 2 years. One can hardly say that this length of time is adequate to make a survey of as vast a field as Japanese psychiatry. Therefore, I consulted 2 professors of psychiatry, Dr. Muramatsu of Nagoya University and Dr. Suwa of Hokkaido University, to see if they would deliver a speech instead. They have both been trained in the United States and are far better qualified for this task because of their long and distinguished service in Japanese psychiatry. Both of them, however, said that they could not possibly come to Tokyo at this time, and I had to decide to come to the task alone. I want you therefore to know from the beginning that what I am going to tell you is necessarily limited and can hardly cover even those things of importance in Japanese psychiatry.

I think it will be proper to begin a talk on Japanese psychiatry by some reflection on its history. It is known that Dr. Baelz, a German internist invited by the Japanese government to help establish Tokyo University Medical School, lectured on modern psychiatry for the first time in Japan in 1879. But the regular course in the medical curriculum was initiated in 1886 by Dr. Sakaki, the first Japanese professor of psychiatry. Succeeding Dr. Sakaki as professor of psychiatry was Dr. Kure, who returned to Japan in 1901 after 4 years' study in Ger-

many under Kraepelin and Nissl, and it was he, we may say, who determined the course of Japanese psychiatry for the following 50 years up to this date. Dr. Kure found that neuropathology in particular, which he learned from Nissl, attracted a number of bright students, who in turn pursued this discipline with such intensity and enthusiasm that it has become the most active field in Japanese psychiatry. But I do not want you to have the impression that Japanese psychiatry has been solely under the influence of the German school, for there have been a few professors of psychiatry who have studied in France or the United States, though they have exerted comparatively little influence. Among them I mention only Dr. Marui who was professor of psychiatry at Tohoku University. He for the first time introduced psychoanalytical theories to Japanese psychiatry some 30 years ago after his study in the United States under Adolf Meyer and later established a branch of the International Society of Psychoanalysis in Japan, but the over-all result of his pioneer work was anything but a success. I shall return to this topic later. In this connection, Dr. Morita, who was professor of psychiatry at Jikei University, should also be mentioned. He was the first Japanese psychiatrist who became intensely interested in psychotherapy and devised a special method of psychotherapy which starts with confinement to bed in isolation and goes on to occupational therapy along with supportive explanation and counseling. This brand of psychotherapy was said to be effective for a type of neurosis called *shinkeishitsu* and was followed at various university clinics, notably Kyushu University. (*Shinkeishitsu* literally means nervousness, but denotes hypochondriac personality rather than just nervousness.) As a matter of fact, Dr. Morita's method is still in use at many places, and was reported by Drs. Jacobson and Berenber at the 1952 meeting of The American Psychiatric Association.<sup>2</sup> Now the in-

<sup>1</sup> Presented May 4, 1954, at the Neuropsychiatric Conference, FEC, U. S. Army Hospital, 8167th Army Unit, Tokyo.

<sup>2</sup> Am. J. Psychiat., Nov. 1952.



teresting thing is that Dr. Marui, interpreter of psychoanalysis to Japanese psychiatry, and Dr. Morita, founder of the new school of psychotherapy, were engaged in very hot arguments at the conventions in 1930, '31, and '32, on the relative therapeutic value of psychoanalysis and Morita therapy. It is remembered that this verbal duel between two professors was most exciting to all who attended the conventions, but no one ever really knew which side won the battle.

I mentioned above that American psychiatry had little influence on Japanese psychiatry, but this has not been true since the end of the second world war. Japanese psychiatrists, hungry for new knowledge, have attempted to test and absorb whatever they found good in American psychiatry. But they have left one thing undigested so far: that is dynamic orientation which is so essential, as I see it, to American psychiatry. (Some of you may object to the adjective "essential," but will not deny that dynamic orientation is the most prominent feature of present American psychiatry.) To give you a general idea of the impact which dynamic orientation has had on the minds of Japanese psychiatrists, I think I shall do best by quoting from the keynote address by Dr. Uchimura entitled "The Past and Future of Japanese Psychiatry," which was given at the 50th convention of the Japanese Neuropsychiatric Association in 1953. But before quoting from his speech, let me say a few words about Dr. Uchimura himself so that you may understand better the weight his speech had on Japanese psychiatrists. Dr. Uchimura has been professor of psychiatry at Tokyo University for the past 18 years and has been the most prominent figure in Japanese psychiatry. He was trained at the Institute for Psychiatric Research in Munich, Germany, from 1925 to 1927 under the eminent Dr. Spielmeier. (It may interest you to know that Dr. Lawrence S. Kubie, now practicing psychoanalysis in New York was in the same institute at the time when Dr. Uchimura was there and they became very good friends.) Dr. Uchimura's scientific interest then was naturally drawn to neuropathology, like other leading Japanese psychiatrists, and he has contributed numerous important papers to that field, ranging

from mid-brain pathology, pathogenesis of epilepsy to cerebral pathology caused by the atomic bomb. But his interest was not limited to neuropathology alone, rather he has kept a keen interest in every field of psychiatry, having published various papers on themes such as the Ainu race and its Imu, incidence of psychosis among the Japanese population, as well as conducting many research groups in twin study, electroencephalography, and psychosurgery. It should also be noted here that he is a great teacher and has educated more psychiatrists than any other professor. As a matter of fact, 12 contemporary professors of psychiatry are his former pupils. (I may add that the one who is reading this paper is also one of his many pupils.)

Now returning to his keynote address at the 50th convention in 1953, Dr. Uchimura's statement about American psychiatry is as follows:

I was really surprised to know that American psychiatry had taken in so much from psychoanalytical theories and had also put a great emphasis on clinical psychological testing. . . . I think it is a great task for Japanese psychiatrists to understand correctly what dynamic psychiatry is and to face it with a critical mind. . . . Among several doubts that I have about dynamic psychiatry, the greatest one concerns its overestimation of childhood experiences and milieu, especially its attempt to explain adult behavior or symptoms in terms of those experiences, which I find far-fetched and lacking in substantial validation.

In spite of this criticism, however, he does not oppose the practice of psychotherapy based on dynamic principles if it is the thing which really helps the patient, but here again he ponders about whether or not any unbiased scientific study has ever been done to test dynamics or psychoanalytical psychotherapy against another brand of psychotherapy, so that we may recognize the unique significance of dynamic psychotherapy. Now you may wonder what sort of psychopathology Japanese psychiatrists generally entertain, if most of them reject analytical psychopathology as fictitious. One group takes to German psychopathology represented by Karl Jaspers, now a famous philosopher, and another group takes to French psychopathology descending from Pierre Janet. The former finds its followers mostly among Tokyo University psychiatrists and the lat-

ter mostly among Kyoto University psychiatrists.

Having oriented you to the prevailing academic atmosphere in Japanese psychiatry, I will proceed to a brief description of the present status of Japanese mental hygiene. By this I mean the condition of mental hospitals as well as the system for training psychiatrists and adjunctive staff. The estimated nation-wide population of the mentally ill in Japan, which excludes neurotics, but includes severe character disorder, is about 3,500,000, and one-fifth, 700,000 consists of psychotics. Among these psychotics some 150,000 are believed to need hospitalization, while the total number of beds available for these patients amounts only to 27,000, *i.e.*, only 18% of the beds needed, and this figure, by the way, constitutes 7.19% of all hospital beds in Japan. Further, if you compare the ratio of mental hospital beds to the total population of various countries in the world, that of Japan ranks with the lowest, namely, 2.2 per 10,000, whereas that of the United States is 50, which is the top figure. I do not believe that this incredible shortage of mental hospital beds can be explained simply on the basis of the low economic status of Japan. I personally feel that the incentive of the public to promote mental hygiene has never been great here and the psychiatrists also on their part have not been so enthusiastic about enlightening the public as they are about academic research. It should be pointed out that the Japanese psychiatrists as a whole are very research-minded, but not so profession-conscious as their American colleagues are. This is reflected, I think, in their failure to establish the formal residency program and the specialty board, the purpose of which is solely to maintain the high level of the profession. For instance, almost all young physicians who, after internship, take psychiatric training at the university clinics, do start or prepare themselves for some research within a year or so. Likewise, the fact that the Japanese psychiatrists show a considerable interest in psychometrics points in the same direction. This being the case, it seems to me that in Japan clinical psychologists will never enjoy an independent position as they do in the

United States. This is entirely an opposite picture to that of the United States, where clinical psychologists not infrequently turn to a profession of psychotherapy, apart from their chief concern in psychometrics and its related research. Speaking about the training of psychiatrists, it should also be mentioned that making two different professions of psychiatry and neurology has not been the practice here, but there recently seems to be a steady movement in that direction, particularly on the part of internists who have specialized in neurology. Incidentally, the total number of Japanese psychiatrists is estimated to be about 800, a very small number, although there is a tendency to rapid increase in recent years. Now as for the training of adjunctive staff such as psychiatric nurses, attendants, occupational therapists, there are no systematic courses or training centers for them at present.

I want to add here, in passing, a few words about the present status of child psychiatry in Japan. There are now a few research centers for child psychiatry, but at the time of writing no medical school has a professor of child psychiatry on its staff. The child guidance clinic was introduced into postwar Japan according to the pattern in the United States and there are now about 110 clinics scattered throughout Japan, staffed mostly with clinical psychologists and social workers and only in rare instances with psychiatrists. At the present time these clinics chiefly serve as the temporary placement centers for orphans as well as mentally retarded children, and there is very little practice of guidance. This can be attributed to the fact that very few members have had enough training for the professional skill of guidance or counseling. As a matter of fact, psychotherapy in general, has not yet established itself as a profession in Japan, its practice being mainly limited to moral support which the physician gives the patient casually, unless it takes a particular form like Morita therapy.

Now I will turn to the discussion of Japanese psychoanalysis. About this subject a very interesting and informative article by Dr. James Clark Moloney, entitled, "Understanding the Paradox of Japanese Psychoanalysis," appeared in a recent issue of the

*International Journal of Psychoanalysis*. In this article the author contends, judging from various articles which appeared in the *Tokyo Journal of Psychoanalysis*, that the practice of psychoanalysis in Japan is quite different from what it is in the Occidental countries, being contaminated, so to speak, by the Japanese way of life which all Japanese analysts share. This remark is interesting when you compare it with Drs. Jacobson and Berenberg's interpretation of Morita therapy as an embodiment of the Japanese way of life. I will quote Dr. Moloney's conclusions:

... it is evident that these [Japanese] scientists entertain precisely the same attitude towards the individual as is expressed in *Kokutai No Hongi* [the name of the textbook meaning the cardinal principles of the national entity of Japan]. Without question they subscribe to the concept of coevality with heaven, earth, and emperor, and they regard the individual as a segment of the national entity of Japan. . . . In the adaptation accomplished by the Japanese psychoanalysts, the conscious ego becomes synonymous with an awareness of the cardinal principles of the national entity of Japan.

Speaking of the national entity of Japan in terms of coevality with heaven, earth, and emperor is quite out of date in postwar democratized Japan and nobody now believes in it [I hope so] but nevertheless Dr. Moloney's observations are, in my opinion, essentially correct and still apply as far as the basic mentality of the Japanese people is concerned. However, if he draws the conclusion from these observations that Japanese psychoanalysts necessarily and simply because of their being Japanese cannot grasp the true meaning of psychoanalysis, I cannot agree with him. To state this in simple words, what is really wrong with these Japanese psychoanalysts is their lack of proper psychoanalytic training. As a matter of fact, Dr. Kosawa, a former disciple of Dr. Marui who is the founder of the Japanese Psychoanalytical Society, is the only one who has had any form of training and he has had only 3 months of training analysis while he was in Austria in 1932, which can hardly be said to be adequate according to the standard that the International Society of Psychoanalysis sets up. I have been in close contact with him for the past few years and know how well read he is in psychoanalyti-

cal literature and theories, but I should say that he is seriously handicapped in treating patients. Incidentally, he is a devout Buddhist and there seems to be no distinction in his mind between his religion and psychoanalysis. Hence, you may suspect that his approach to patients must be quite authoritarian, which it is; however, it may be said this his attitude is matriarchal rather than patriarchal according to his religious or psychoanalytical convictions. Now supposing that my theory that what is wrong with the Japanese psychoanalysts is their deficient training is right, the question remains as to what would become of the Japanese psychiatrists or lay people when they undergo the proper course of training analysis. Would they be more Occidental after analysis than before, as may be derived from Dr. Moloney's tacit assumption that the goal of psychoanalysis is co-existent or identical with that of Occidental individualism? To phrase the question in another way, would those Occidentals, American or European, who undergo analysis become more Occidental or individualistic by analysis? This question is as interesting and thought-provocative as it sounds a little funny, but since it involves the relationship of psychoanalysis as a science to psychoanalysis as a potential *Weltanschauung* or ideology and is not subject to a simple answer, I will not discuss it further.

In discussing Japanese psychoanalysis above I came across the problem of cultural differences between the Occident and the Orient. I think this problem, especially its bearing upon different types of mental patients, has lately drawn considerable attention from American psychiatrists and cultural anthropologists and you may therefore be interested in hearing the Japanese psychiatrist's opinions on this matter. I regret to say, however, that I have no definite opinion except a few unorganized thoughts, nor have I conducted any relevant research myself. As I understand it, the psychiatric team of Nagoya University is doing some research along this line with the help of Dr. DeVos, an American clinical psychologist, and another American cultural anthropologist is expected to join the team this coming autumn. So far we have not seen any pub-

lished report from them on this particular problem, and we look forward to seeing it soon. But I have an apprehension that if their research relies solely on psychometrics, and formal interpretations by the standard which is nothing else but a deduction from a large number of answers given by Occidental people, they miss a subtle, peculiarly Japanese trait which they are looking for, since they set out with a working hypothesis that there may be such a Japanese trait. Of course I do not mean that there is no possibility of getting a typically Japanese reaction on psychological testing, but I am afraid that what is most typically Japanese, if there is such a quality, will be lost through psychometrics as it is constructed now. The reason for my apprehension is very simple, that the typical psychology of a given nation can be learned only through familiarity with its native language. The language comprises everything which is intrinsic to the soul of a nation and therefore stands for the best projective test there is for each nation. It is too obvious to say that psychiatrists in Occidental countries do not solely rely on psychometrics for psychological examination of their patients even if psychometrics turns out to be quite sensitive. How then could it be fit for determining a subtle national trait of a foreign country? I may add that a sociological study of a foreign nation also cannot have any depth without the knowledge of the language. For instance when you say with Dr. Moloney that the Japanese "regard the individual as a segment of the national entity of Japan," how can you differentiate

it from other totalitarian concepts such as exemplified in Nazism or Communism? Or is there no difference at all between them, so far as they are totalitarian? I am the one who takes the view that there is a difference psychologically and sociologically in the degree and quality of being totalitarian, subtle and elusive as it may be. At any rate I would strongly recommend to you, if you are interested in getting to the bottom of Japanese psychology, that you thoroughly familiarize yourself with the Japanese language and associate with as many non-English-speaking Japanese people as possible. This must be a *sine qua non* for a complete study of the Japanese culture.

I have tried to give you the origin and the prevailing academic atmosphere in Japanese psychiatry, a description of the slow development of mental hygiene and the unsuccessful movement of Japanese psychoanalysis, and have drawn your attention to the problem and difficulty of studying the Japanese culture and its bearing upon psychiatry. I have deliberately avoided discussing in detail numerous contributions by the Japanese psychiatrists, most of which are in the organic field, mainly because I am not as familiar with them as I should be.

Now in closing, I want to express again my deep appreciation for this invitation, which I consider not only as a great personal honor, but an honor to the entire body of Japanese psychiatry, since this is the first time, to my knowledge, that a Japanese psychiatrist has been invited to address a convention of American psychiatrists.



## CLINICAL NOTES

### THE USE OF CHLORPROMAZINE HYDROCHLORIDE IN THE TREATMENT OF BARBITURATE ADDICTION WITH ACUTE WITHDRAWAL SYNDROME<sup>1, 2</sup>

WILLIAM BROOKS, M.D.,<sup>3</sup> LAWRENCE DEUTSCH, M.D.,<sup>4</sup> AND ROBERT DICKES, M.D.<sup>5</sup>

The steady increase in barbiturate addiction during recent years is a serious medical problem. Acute barbiturate intoxication ranks highest among admissions to general hospitals for acute poisonings, and barbiturates are now the most popular suicidal agents<sup>(1)</sup>. Barbiturate addiction only recently has been recognized as a clinical entity. In 1949 it was shown experimentally that following the regular administration of large amounts of barbiturates, tolerance and well-defined abstinence changes developed quite consistently<sup>(2)</sup>. It was formerly believed that barbiturates did not cause addiction, but rather habituation, and that abrupt withdrawal produced no symptoms except craving for the drug. Isbell *et al.*<sup>(1, 3)</sup> have stated that addiction to barbiturates is not only real, but more undesirable than addiction to any of the opiates. In chronic barbiturate addiction, abstinence is in fact more dangerous to life than is abstinence from morphine, in morphine addiction. The treatment of barbiturate addiction is difficult, and management of the withdrawal syndrome is lengthy and necessitates constant care.

A case is presented wherein chlorpromazine hydrochloride (Thorazine<sup>2</sup>) was used in the treatment of chronic barbiturate intoxication, exhibiting the acute withdrawal

syndrome. Contrary to customary treatment, barbiturates were abruptly withdrawn on admission to the hospital.

The patient, a 39-year-old, white housewife, was a known barbiturate addict for many years. She was admitted to the Kings County Hospital on September 29, 1954, with severe nausea, vomiting, abdominal cramps, weakness, and insomnia of one and one-half days' duration. At the time of admission she had not taken drugs for 16 hours.

The present illness began over 10 years ago, when the patient sought help for nervousness. Phenobarbital was prescribed. Shortly thereafter she began to take secretly increasingly large doses of various barbiturates. She finally averaged 2 to 3 grams daily. Hospitalized voluntarily in 1950, in a state mental hospital, where barbiturates were withdrawn gradually, the patient was discharged in 60 days, and soon thereafter was ingesting her usual amount of barbiturates. Paraldehyde was taken, rarely, when barbiturates were unavailable.

In 1952, the patient was admitted to the Kings County Hospital because of severe nausea, vomiting and tremulousness. At the time of admission she had been ingesting as much as 4.0 grams amobarbital sodium daily. Barbiturates were gradually withdrawn over a 31-day period. Shortly after discharge the patient was again taking 3.0 grams of amobarbital sodium daily.

During the same year she was again admitted to a state mental hospital on a voluntary basis. This admission lasted 4 months, and as usual barbiturates were withdrawn gradually. She also received 15 electroshock treatments. The patient said that she felt somewhat better following these, though somewhat confused and amnesic. Shortly after discharge from the state hospital, the patient was once again taking as much as 4.0 grams of the drug daily.

On September 1, 1954, she again presented herself at the Kings County Hospital because of nausea, vomiting, and severe depression. She was treated over a 14-day period, during which the barbiturates were gradually withdrawn. As usual, following discharge, the drug intake was resumed.

On September 29, 1954, two weeks after discharge, the patient again presented herself for admission. She had been without drugs for 16 hours and complained of nausea, vomiting, abdominal cramps, weakness, and insomnia. Physical examination revealed a very apprehensive, well-nourished

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<sup>2</sup> Part of a larger study on chlorpromazine hydrochloride (Thorazine, S. K. & F.), supported by a research grant from Smith, Kline & French Labs.

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and developed woman, who was sitting up in bed, vomiting and retching almost continually. Her lips and tongue were dry. She exhibited coarse tremors of the hands and fasciculations of the muscles of her extremities were evident. Her reflexes in general were hyperactive but equal. The remainder of the physical examination was within normal limits.

#### COURSE

During the first day the patient tolerated nothing by mouth and intravenous infusions were given to restore fluid and electrolyte balance. Thorazine,<sup>2</sup> 25 mg., was given intramuscularly at 6-hour intervals; and 8 c.c. of paraldehyde was given intramuscularly at 4-hour intervals. The vomiting and retching diminished in frequency and ceased in 18 hours. The patient appeared less apprehensive and much improved, though insomnia persisted.

Thorazine<sup>2</sup>, 50 mg. 3 times a day, was given orally on the second and third days. Paraldehyde was reduced to 4 c.c. intramuscularly, at 4-hour intervals. The patient was much more relaxed and comfortable. However, coarse tremors and twitchings of various muscle groups were occasionally noted.

Thorazine<sup>2</sup> was increased to 50 mg. 4 times daily, on the fourth and fifth days. Oral paraldehyde, 3 cc. every 6 hours was administered. The patient appeared calm and remarkably improved. There was return of her appetite and she tolerated well a 2,000-calorie, high protein, multi-vitamin supplemented diet. The coarse tremors decreased and muscular twitchings were infrequent. The patient still complained of insomnia.

Paraldehyde was discontinued on the sixth day and Thorazine was increased to 50 mg. every 4 hours. Considerable improvement was noted in the patient's physical and emotional status. She became cheerful for the first time since admission, applied cosmetics, listened to the radio and was ambulatory.

From the seventh to the thirteenth day, she was maintained on Thorazine<sup>2</sup>, 50 mg. every 4 hours. The patient continued to improve. She became stronger, developed a feeling of well-being, and was able to sleep better by the ninth day.

On the thirteenth day, Thorazine<sup>2</sup> was drastically reduced to 20 mg. every 4 hours, without producing any untoward effects. Improvement continued to an uneventful recovery. Thorazine<sup>2</sup> was discontinued on the fifteenth day, and the patient was discharged from the hospital on the following day.

Patient was seen one month after leaving the hospital, and as yet had not resumed drug intake. She had gained weight and stated that she felt well.

She was seen again 3 months after discharge. She stated that she had not taken any sedation, and had no need to do so. Her only complaint was occasional insomnia.

#### DISCUSSION

Isbell *et al.*(3) presented a study which emphasized that sudden withdrawal of bar-

biturates or reduction to 20%-50% of the accustomed dose, is followed by a clear-cut withdrawal syndrome. This syndrome is characterized by weakness, apprehension, anxiety, slight fever, anorexia, nausea, vomiting, tremors, disturbance in the cardiovascular adjustment on standing, insomnia, convulsions, and psychosis. Convulsive seizures occurring during barbiturate withdrawal have been observed quite commonly at the United States Public Health Service Hospitals at Lexington, Kentucky, and Fort Worth, Texas(4, 5, 6, 7). Hewitt(8) reported 12 cases in which a toxic psychosis occurred during barbiturate withdrawal. Curran(3) discussed the effects of barbiturates on emotional processes and occurrence of psychosis with barbiturate intoxication. Any combination of the above-mentioned symptoms may occur with drug withdrawal. Recovery from chronic barbiturate intoxication, and from the withdrawal syndrome, when it occurs, is usually complete and without permanent residual damage(1). At present, treatment of barbiturate addiction consists of withdrawing the drug slowly, perhaps over a period of a month(1, 2). Some observers(8) give an adequate dosage of a narcotic drug during the gradual withdrawal of the barbiturate in order to avoid the danger attendant on the concomitant abstinence. Isbell *et al.* report that unless the patient becomes psychotic, the acute withdrawal symptoms gradually disappear after 2 or 3 weeks.

The use of Thorazine<sup>2</sup> made it possible to immediately withdraw barbiturates and to effect a rapid amelioration of symptoms. Consequently, the hospital stay was considerably shortened.

It is our feeling that the improvement noted was due to the effects of Thorazine<sup>2</sup> and that paraldehyde was unnecessary. Significant doses of paraldehyde were given only during the first 96 hours. Paraldehyde was discontinued on the fifth day and it alone would in no way constitute adequate treatment for this withdrawal syndrome.

#### SUMMARY

A patient with barbiturate addiction and the acute withdrawal syndrome was treated successfully with Thorazine.<sup>2</sup> We feel this

drug warrants further clinical investigation in the treatment of drug addiction.

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### A STUDY OF ISONIAZID AS AN ADJUNCT TO PSYCHOTHERAPY

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Since January 1953, 18 ambulatory psychiatric patients, representing all major diagnostic categories with the exception of organic and senile psychoses, have been studied at the outpatient psychiatric service of the Roosevelt Hospital and in private practice, with the original aim of determining the effectiveness of isoniazid as an adjunct to psychotherapy. With this in mind subjects were chosen who had had at least 1 year of psychotherapy prior to isoniazid, and a selected group of 8 were chosen who were under treatment by 7 of my colleagues at the Roosevelt Hospital. Each of these were under modified psychoanalytic therapy. They were matched as to diagnosis, age, and sex. One-half were given a placebo for 8 weeks followed by isoniazid 100 milligrams t.i.d. for 8 weeks. The other half had the isoniazid followed by placebo.<sup>1</sup> Special attention was paid in all cases to the dynamic meaning of the medication of the patient in an effort to

rule out effects due to magic thinking, oral gratifications, and the like. While 5 patients improved under the medication, in 3 cases this was only temporary. The improvement in these 5 cases could not be related to diagnostic category. However, each of these patients had strongly inhibited or repressed oral needs (2 alcoholics, neurotic vomiting, an obsessional neurotic with food preoccupations, and a paranoid with speech inhibition). Among the other patients were a number with apparently similar oral difficulties who were not improved at all. Improvement consisted in a decrease of intensity and duration of rage accompanied by improved sleep, improved appetite, increasing ability to verbalize their feelings, and better social relationships. These effects appeared to be above and beyond those due to purely psychodynamic factors. While isoniazid has too slight and evanescent and unpredictable an effect to be generally of value in the treatment of psychiatric disorders, it is thought that it could be useful as an adjunct in the psychotherapy of orally inhibited individuals.

<sup>1</sup> We should like to thank Chas. Pfizer & Co., who supplied tablets of both isoniazid and placebo.

## CASE REPORTS

### PSYCHOSIS RESULTING FROM PENICILLIN HYPERSENSITIVITY

#### REPORT OF A CASE AND REVIEW OF THE LITERATURE<sup>1</sup>

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Penicillin, the most widely used of antibiotics, is daily employed by almost every practicing physician. Despite the fact that untold thousands of lives have been saved by penicillin, recent journals (1, 2, 3, 4, 5, 6, 7) contain numerous cases of severe reactions to the drug. Intramuscular injection, oral ingestion, and parenteral application have all produced anaphylactic reactions, as well as a multitude of less severe reactions. Indeed, Blanton (1) reported the case of a 35-year-old drug salesman, so sensitive to the drug, that he developed severe paroxysmal dyspnea with coughing, wheezing, and rhinorrhea, when a patient in an adjoining, closed room was given penicillin by aerosol. It is generally accepted (3, 5) that 5%-10% of those receiving the drug show some untoward manifestation, usually mild, transitory, allergic phenomena. Kern (3) believes that penicillin today is the commonest cause of drug allergy and that manifestations of penicillin sensitivity cover the whole gamut of allergic reactions and immunological deaths.

In view of the above, it is surprising that only 3 previous reports (8, 9, 10) of severe psychiatric abnormalities associated with a reaction to penicillin could be found in the literature. Cormia, in 1945, reported the case of a 29-year-old soldier who, while receiving local applications of penicillin for a chronic eczematoid dermatitis of the face, became agitated, depressed, and confused. Associated with the mental symptoms were fever, urticaria, massive edema of the face and extremities, pulmonary edema, and arthralgias.

Kline and Highsmith (9), in 1948, reported the case of an 18-year-old girl who had both oral and intramuscular penicillin for otitis media, 5 days following the uncomplicated

use of intramuscular penicillin for an upper respiratory infection. Two days after termination of therapy, she developed fever, urticaria, and arthralgias. With the administration of pyribenzamine, urticaria began to subside. Four days later she became restless, suspicious, and complained of hearing voices. When pyribenzamine was discontinued the hives were exacerbated and the mental symptoms became more pronounced. Two days after reinstitution of the drug the hives subsided and the mental symptoms disappeared.

Robinson, *et al.* (10), in 1952, reported 2 cases of toxic psychosis in middle-aged men, which they attributed to penicillin in one instance, and chloromycetin and penicillin in the other. Both patients had visual hallucinations. The one who received penicillin alone also showed depression and grandiosity. The patient who received both drugs had tremors, dyspnea, and tachycardia. Disappearance of mental symptoms, with no specific treatment, was rapid in both.

It is quite possible that other, milder, psychological reactions have been ignored or overlooked by busy physicians, preoccupied with the more obvious and demanding physical manifestations of the allergic reaction to penicillin.

Morginson (11), classifying the toxic reactions accompanying penicillin therapy, listed 16 types of reactions produced by the antigenic properties of penicillin. One of these was, "Euphoria and laughing, psychotic depression, agitation, confusion and nervousness." However, he presented no case material bearing on this topic and the only reference apparently relevant was the previously cited case of Cormia.

The following is the report of a patient who developed a transient psychotic reaction, associated with physical phenomena of an obvious allergic nature, following the ingestion of oral penicillin.

<sup>1</sup> The opinions expressed in this paper are those of the author and do not necessarily reflect the viewpoints of the U. S. Navy.

## CASE REPORT

The patient, a 23-year-old white male, EN<sup>a</sup>, was admitted to the hospital, December 16, 1953, tense, anxious, tremulous, confused, and disoriented. During the preceding week he had been suffering from a "cold"; 2 days prior to admission he decided to treat himself, using "cold tablets" given to him a number of months previously by his former HMC. He took 2 tablets (each containing 250,000 units of crystalline potassium penicillin G) whose content was unknown to him at the time and, within 24 hours, developed pedal edema and generalized urticaria, soon followed by elevation of temperature. On the morning of December 14 he reported to sick bay with the above complaints and was given calamine lotion and pyribenzamine, taking 4 50 mgm tablets during the day. The following morning he reported the urticaria as improved. That evening, after going home, he was unable to sleep, began sweating profusely, and had an elevated temperature. He felt himself "souped-up" and his family noted that his pupils were dilated and did not constrict when they flashed a light into them. He could not sleep, became irrational, and his brother brought him to the hospital.

On admission the patient walked about the admitting room and looked under tables and chairs, as though searching for something. He apparently thought himself aboard ship as he told the intern to "take the first watch and wake me up for the second watch." He was started on epinephrine 0.25 cc sc q 4 h and given calcium gluconate, 10 cc, I.V. Within a few hours the confusion cleared, the patient became approximately oriented for time, although he was still moderately tremulous and had persistence of generalized urticaria. Epinephrine and calcium gluconate were discontinued and within 24 hours the patient showed an increase in confusion, angioneurotic edema of the lips appeared, and complaints of itching recurred. After being placed on epinephrine again, the urticaria began fading, itching disappeared and the patient became more alert and less disoriented. Within 48 hours after admission, he was clear mentally, and remained so throughout his hospital stay. To ascertain the possible influence of pyribenzamine, he was given this drug, in increasing doses, up to 200 mgms daily, without any noticeable effects. He was observed for 2 weeks, during which time he remained clear and alert.

History revealed the patient had 3 previous urticarial reactions to penicillin. In March 1951, he was given oral penicillin, one tablet daily for 3 weeks, as part of a "test company" in boot camp. He developed slight fever, pedal edema, and urticaria, all of which cleared upon symptomatic treatment with calamine lotion. On April 14, 1951, he developed acute pharyngitis, was treated with 600,000 units of procaine penicillin in oil and again developed fever, urticaria, and pedal edema which subsided on symptomatic treatment. In September 1953, while hospitalized for acute epididymitis, he again received procaine penicillin, with occurrence of allergic manifestations. Again, symptomatic

treatment was successful. During none of these 3 previous allergic episodes were psychotic manifestations evident.

While in the hospital in September 1952, the patient developed sudden, unexplained pain in the precordial region, which was diagnosed as acute pericarditis, etiology unexplained. (This was confirmed by EKG.) Recovery from this was uneventful.

*Background.*—The patient was born and reared in a small West Virginia coal mining town, being the third of 4 children born to a coal miner and his wife. Parents, siblings, and relatives are in good health, with no known mental illnesses or allergies. The patient completed high school at the age of 17, after which he worked for 2½ years in the coal mines. He then joined the Navy in March 1951 and has been aboard his present ship for the past 2 years. He became a third class petty officer last year, likes his work, spends a good bit of his spare time studying engineering and plans to make a career of the Navy. He has been married, to a hometown girl, for a year and feels that their marriage is quite satisfactory. As soon as circumstances permit he plans to buy a home and raise a family. Aboard ship he is reported to be a very stable, hard-working, conscientious, well-liked individual.

## DISCUSSION

This case bears many similarities to the one described by Cornia(8) and to that of Kline and Highsmith(9). All these patients developed fever and urticaria shortly before, or concomitant with, the onset of mental symptoms. Other allergic manifestations, such as edema of the face and extremities, pulmonary edema, and arthralgias, occurred in 1 or 2 of the cases but not in all 3. Probably coincidentally, all of these patients were young adults who apparently had previously enjoyed good physical and mental health. The probable allergic nature of the phenomena was shown in this case and that of Kline and Highsmith when withdrawal of antihistaminic agents (epinephrine and pyribenzamine, respectively) produced an exacerbation of the mental symptoms, as well as the urticaria. One patient received topical penicillin therapy, one oral, while the third had a combination of oral and intramuscular penicillin.

Quite different are the 2 cases of Robinson, *et al.*(10). Although probably suffering toxic psychoses, neither patient showed clear-cut evidence of hypersensitivity in other symptoms (unless the dyspnea and tachycardia of the patient who received both penicillin and chloromycetin might be so construed). The lack of information concerning the nature



and extent of the original illnesses, which were severe enough to require hospitalization, the possible role of other drugs, and the use of 2 antibiotics with one of the patients, make the role of penicillin less clear in these 2 patients.<sup>2</sup>

The breakdown of the cases into 2 groups, similar with respect to toxic mental manifestations, and dissimilar with respect to generalized manifestations of hypersensitivity, appears explicable on the basis of 1 of the 2 following hypotheses. First, those cases displaying only psychotic phenomena may have been due to a toxin liberated by the original clinical condition, the physiological and psychological stress incident to the condition, or to some other drug received by the patient during the course of therapy. More adequate protocol would help to clarify this issue. Secondly, it is possible that the cerebral tissues of these patients were more sensitive to the antigenic properties of penicillin, thereby limiting the clinical phenomena to the central nervous system. Sensitivity studies of such patients would adequately test the veracity of this hypothesis.

It has been demonstrated by Walker and Johnson (12) that injection of penicillin into the cerebral cortex of cats, monkeys, and humans can produce seizures, the convulsions appearing directly related to the dosage of penicillin. Walker, *et al.* (13), have shown that systemically administered penicillin is absorbed by the brain in sufficient quantity to affect the electrical activity of the brain. Of 51 patients who received penicillin for diseases other than those of the central nervous system, 60% had electroencephalographic abnormalities while receiving the drug, whereas EEG's before and after therapy were normal.

It seems logical that nervous tissue, like other tissues of the body, can respond to an

antigen, and that, in certain individuals, the tissues of the central nervous system will be the primary shock organ, producing psychological and, or, neurological changes. That the latter is true is demonstrated by the cases of peripheral neuritis reported by Kolb and Gray (14).

Kline and Highsmith (9) postulated that endematous lesions in the brain were responsible for the psychotic phenomena in their case, citing the simultaneous recurrence of urticaria, arthralgia, and mental symptoms when the antihistaminic agent was withdrawn.

This case has been reported because of the rarity of similar cases in the literature, a rarity which, it is felt, is not duplicated in clinical practice. It is beyond the scope of this paper to cover the numerous other, more common, manifestations of penicillin reactions, already amply covered in numerous papers. The plea of many writers who have spoken for more judicious use of this extremely valuable, life-saving drug can only be repeated. To say the least, elimination of its use in the treatment of minor illness, such as the common cold, where there is no sound medical justification for its use, as well as careful inquiry regarding any past allergic phenomena, should be the *sine qua non* for the employment of penicillin.

#### SUMMARY

A case of psychosis resulting from hypersensitivity to penicillin is reported and the literature on the topic reviewed, showing the paucity of previously reported cases. Hypotheses regarding the mechanism of action of penicillin in producing psychological changes is presented.

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### A CASE OF A HIP-FRACTURE OCCURRING DURING ELECTRIC SHOCK TREATMENT IN A PATIENT WITH AN AMPUTATION STUMP<sup>1</sup>

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Bernard H., a 57-year-old white male, was admitted to the Middletown State Hospital on December 10, 1952, and a diagnosis of dementia praecox, paranoid type was made. Aside from the fact that the patient had a left mid-thigh amputation, physical examination was within normal limits. This amputation was necessary in 1926 following a motor accident. Patient walked fairly well with his artificial limb.

On April 2, 1953, a course of electric shock treatments was started. On April 11, after the third electric shock treatment with 120 volts, .2 seconds, producing a grand mal seizure, the patient complained of pain in his left hip. X-ray of the left hip did not reveal any fracture. Electric shock treatments were then discontinued; he slightly improved mentally.

On December 29, 1953, electric shock treatments were again started because patient's mental condition warranted them and his physical condition was satisfactory. On December 31, after patient had received his fifth electric shock treatment with 110 volts .3 sec., producing a grand mal seizure, he complained of severe pain in his left hip joint. There was pain on movement and pain on pressure in his left hip joint; he could not lie or sit on the left side. X-ray,

January 4, 1954, showed a fracture of the neck of the left femur with the usual displacement. He was seen by our consulting surgeon and it was decided to immobilize his left leg in Buck's traction which was done on January 4, 1954. On February 5 the traction was taken off; patient was fairly comfortable when he was lying quietly, but he still had pain on movement. X-ray of the left hip joint, March 4, 1954, showed that most of the femoral neck had now been absorbed.

At the beginning of May patient could move his leg without pain although he still had some restriction in movement. Physiotherapy was ordered, so that patient again would be able to use his artificial limb.

Kalinowsky and Hoch in their book *Shock Treatments, Psychosurgery and Other Somatic Treatments in Psychiatry* state under contraindication for electric shock:

A problem is presented only by bone diseases and previous fractures as well as amputation stumps . . . we have also treated patients with amputation stumps without difficulties.

Dr. Kalinowsky gave the following explanation of the above-mentioned statement:

The listing of amputation stumps as a possible reason for fractures was based entirely on theoretical grounds because of the decalcification of stumps. I never heard of a fracture in such cases but treated my own amputation cases with curare. It is for this reason that I believe yours is the first case to prove that my fear was justified.

<sup>1</sup>The author wishes to express his thanks to Dr. Walter A. Schmitz, Director, Middletown State Hospital.

AN INTERESTING CASE OF PORPHYRIA<sup>1</sup>S. HIRSCH, M.D.,<sup>2</sup> AND F. A. DUNSWORTH, M.D.<sup>3</sup>

HALIFAX, N. S.

During a recent review of the cases of porphyria seen on the psychiatric service of the Victoria General Hospital, it was felt that the following case was interesting enough to warrant reporting.

Mrs. M. G., a 27-year-old white, Scottish war-bride, of superior intelligence, was first admitted to the hospital in June 1947, complaining of abdominal pain, frequency, and dysuria. Because of an exhaustive negative medical investigation and obvious anxiety, she was seen by the psychiatric service. The history revealed a very difficult past and present life situation to which she adjusted herself poorly, and a diagnosis of "anxiety reaction" was made.

She was next admitted on May 21, 1949, complaining of abdominal pain of 10 days duration and burning on urination. It was noted that hypodermic injections of sterile water relieved the pain. On May 24, an acute psychotic episode began and lasted 2 weeks. She complained of "electric shocks," "pins and needles running through her," and of weakness of the limbs. She had paranoid delusions about the nurses, auditory and visual hallucinations, talked to herself, and urinated on the floor. She later said that the limb weakness began after she visited a paraplegic patient and that she knew it was the result of suggestion. She described the onset of episodes of abdominal pain under stress-producing conditions at home and gave a long history of instability from early childhood, including some borderline hallucinatory episodes. She described what appeared

to be an autistic love affair with the minister of her town. He had visited her a few days before the psychotic episode began. She was very dramatic and voluble and clung to anyone who would listen to her. She improved spontaneously with supportive measures, and left the hospital.

Her next admission was August 19, 1949. Two weeks earlier she had had another attack of acute abdominal pain and vomiting, followed by constipation. A week later her arms and legs had become weak. At the time of admission all upper and lower limb movements were very weak. The neurological service, in consultation, offered a tentative diagnosis of hysterical paralysis.

Sodium pentothal was given intravenously and direct suggestion used to aid in quick mobilization. This quickly restored full movement of the legs but did not affect the arms. Following this, the leg weakness was variable.

Two days after admission it was noticed that the patient's urine was reddish brown and more careful history revealed that the patient had had periods of reddish urine for at least 3 years. Repeated examinations of the urine revealed porphyrins to be present. Her condition quickly deteriorated. On August 29, severe respiratory difficulty began and the patient died on August 30. Postmortem examination confirmed the diagnosis of porphyria.

This case illustrates well the variable picture possible in porphyria, the complex combination of organic and psychogenic symptoms that can occur in what is primarily organic disease, and the danger of overestimating the importance of what seem to be classical psychogenic factors. It also illustrates the danger of drawing positive conclusions from restoration of function by the aid of intravenous barbiturates.

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## HISTORICAL NOTE

### DR. JOHN P. GRAY AND THE GUTEAU CASE

In a letter dated December 31, 1932, written 50 years after the time and the events he refers to, Dr. Edward N. Brush, former editor of this Journal, speaks of his former chief, Dr. John P. Gray, superintendent of the Utica (N. Y.) State Hospital, and his connection with the Guiteau case.

Charles J. Guiteau, a religious fanatic with the aggressive exhibitionism of the street-corner preacher and a warped viewpoint, probably paranoid, had made a vain appeal to President James A. Garfield for appointment to the Paris consulship, although the post was already occupied. He laid his plan and shot the President July 2, 1881. President Garfield died September 19 and Guiteau was brought to trial for murder. Dr. Gray, one of the most prominent forensic psychiatrists of his time, was chief expert witness for the prosecution.

In his letter Dr. Brush writes: "In Feby 1882 Dr. Gray was called to Washington for conference with the U. S. District Attorney and his associates over the exceptions which had been filed by Guiteau's counsel. He returned to Utica late in the afternoon of March 16th and at about 7:30 while sitting in his office at the Asylum looking over some letters which had come in his absence and which I had answered and docketed for his information a man appeared at his office door which stood open and shot him. The ball entered about half an inch below the outer corner of the left eye and emerged about the center of the right cheek.

"Dr. Gray as you may know was a very fleshy man; he had a very full face, the bullet went around, rather than through, the bones of the face and no serious damage resulted—though I believe the shock to the nervous system hastened the Doctor's death, which took place in December 1885.

"An account of the Guiteau case occurs in the American Journal of Insanity, Vol.

XXXVIII, Jan'y., 1882, occupying some 145 pages. Owing to the Doctor's illness the April issue for 1882 did not appear. . . .

"Dr. Gray was in many ways a great man. He did dominate American Psychiatry. Had he turned to politics he would have gone far. His judgment of men, of their motives, of what they were really trying to do, concealed perhaps by some other apparent object, was really at times uncanny."

Through Dr. Gray's influence the man who had attempted to kill him was not punished as a would-be assassin but was committed to the Asylum for Insane Criminals at Auburn, N. Y.

The trial of Guiteau lasted 10 weeks and most of the time was occupied by the question of the defendant's mental condition. There were 16 medical witnesses for the prosecution holding that Guiteau was sane and 8 for the defence maintaining that he was insane. The accused appeared to enjoy the proceedings thoroughly. He made his own plea: "My defence is insanity"; "It was God's act, not mine." He frequently interjected comments of approval or denial as evidence of the various witnesses was being given.

Dr. Gray was the last witness called; his evidence which was given at great length (52 pages in this Journal) was no doubt the main influence in determining the outcome of the case. Guiteau was convicted of murder and was hanged July 30, 1882, a year and 28 days after he had shot the President of the United States.

Exhibitionist to the last he created a spectacle on the scaffold upon which *The Nation* commented thus:

The exhibition of Friday, in which Guiteau was suffered to conduct a sort of religious service consisting of the reading of a chapter from the Bible, a blasphemous and ruffianly and incoherent prayer and ridiculous poem was disgraceful, not simply to

our administration of justice, but to our civilization. Neither the Rev. Mr. Hicks nor the Warden can excuse his share in the transaction by pleading that he was taken by surprise. They knew what the criminal was going to do. His prayer was written out and the clergyman actually held the paper and the Bible for him to read. A more deliberate indecency and profanation has not been committed in our day, and it is greatly to be regretted that those who were responsible for such a shameful scene cannot be punished for it as they deserve.

A troubling thought occurs—that if Guiteau had been tried in the year of grace 1955 instead of 1882 the experts for the defence might have been successful, in which case the assassin, who was only 40 at the time of his crime, might spend several decades of his life in the protection and even comfort of a mental institution at the expense of those who pay taxes.

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#### THE INTELLECTUAL LIFE

I think the scientist's most important educative task is to get the average man to feel that the life of the intellect not only is a good life for those who actively lead it, but that it is also good for society as a whole that the intellectual life should be made possible for those capable of it, and that it should be prized and rewarded by the entire community. It is perhaps a gamble that society as a whole can be made to feel this. But I believe it is a gamble to which the scientific man is committed. If the human race is such a sort of creature that it cannot be made to feel that intellectual activity and satisfaction of the craving for understanding are goods in themselves then we might as well shut up shop here and now, and those of us who are made that way henceforth get the intellectual satisfactions necessary to us as best we can, surreptitiously and in spite of our fellows.

—P. W. BRIDGMAN

## CORRESPONDENCE

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Editor, AMERICAN JOURNAL OF PSYCHIATRY:

SIR: Our attention has been called by Dr. John Whitehorn to what he characterizes as "an inadvertent misinterpretation" of a quotation from *The Psychiatrist, His Training and Development*, to which we referred in our recent article on psychotherapy (*Am. J. Psychiat.*, 111:401, 1954). The quotation was: "In formulating psychodynamics, individuals tend to select their postulates with strong feelings of conviction, in accordance with private feelings or group allegiances rather than public knowledge." As Dr. Whitehorn has correctly pointed out to us, "this statement was not originally presented

as a description of method to be employed in reaching conclusions, but rather as a frank and explicit acknowledgment of one of the hazards or difficulties for anyone attempting creative work in the field of psychodynamics."

It was not our intention to misrepresent Dr. Whitehorn's meaning and we wish to apologize to him if our statement has led to any such misinterpretation on the part of our readers. We have great sympathy and respect for earnest efforts to delineate clearly the limitations and sources of uncertainty in psychodynamics.

KARL W. BOWMAN, M. D.

MILTON ROSE, M. D.



## PRESIDENT'S PAGE

Recently there came to the attention of the writer a brief report of the activities of the Mental Health Section of the World Health Organization during the first 5 years of its existence, 1949-54. It will be remembered that the chief of this section is Dr. George R. Hargreaves, a distinguished English psychiatrist, and a Corresponding Member of The American Psychiatric Association. Since so few American psychiatrists are familiar with the important and extensive program carried on by the Section a brief outline of its work will doubtless be of interest.

At the headquarters of the World Health Organization in Geneva the main objective of the Mental Health Section is to assist in the development of knowledge on mental health to a point where it can be applied by public health administrations. Practical use of such knowledge is made particularly in selected regions where it can be disseminated and applied through projects based on the conditions and needs of the area. A program designed to achieve these objectives is carried out by means of headquarters studies, meetings of experts, consultant assistance to countries, regional seminars, and fellowships.

One type of activity which has proved highly successful and probably could have been undertaken only by an international organization has been the preparation and publication of reviews on subjects of international interest. For this purpose short-term consultants are recruited to make a thorough study of widely scattered literature, to interview experts, and visit institutions concerned with the problem in a number of countries.

The first of these reviews, *Psychiatric Aspects of Juvenile Delinquency*, was originally prepared as a contribution to the United Nations' program for the prevention of crime and the treatment of offenders. This study reviews existing knowledge and practice on the psychiatric aspects of the etiology, prevention and treatment of juvenile delinquency. In order to write this review the

consultant assigned to the task conferred with over 150 experts on juvenile delinquency and visited 60 institutions during a tour of United States and of Europe.

Another study was *Psychiatric Examination of Offenders*. This recommended a routine psychiatric examination before trial and suggested the establishment of scientific legal institutes with social, psychiatric, and medical divisions for observation, investigation and advice as to the further treatment of offenders. Another extensive review dealt with the welfare of homeless children with special reference to the psychological damage caused by the separation of the infant or young child from the mother. In addition to the original English and French editions by the World Health Organization this monograph was published in Danish, German, Serbo-Croat, Spanish, and Swedish translations.

A third monograph, *The African Mind in Health and Disease: A Study in Ethnopsychiatry*, reached only speculative conclusions but posed many questions and it is hoped will stimulate further investigation of a complicated problem.

Other studies have been a comparative survey of existing legislation on the hospitalization of mental patients, on child development and its disorders with special reference to findings derived from electrophysiological and psychological research, and on juvenile epilepsy and its neurological, pharmacological, psychological, and social implications. Other studies which have either already been begun or are about to be initiated are on alcoholism, the epidemiology of psychiatric disorders, and juvenile schizophrenia.

Another activity in the mental health program of WHO has been the holding of meetings by the Expert Committee on Mental Health. This Committee includes experts of high standing from different countries who may be called upon from time to time for advice on specific problems. It meets when convened by the Director-General to discuss and produce a report on subjects of special

current interest. Among subjects considered by this Committee have been the integration of mental health activities with other WHO programs, the development of postgraduate teaching facilities for psychiatrists, psychiatric social workers, clinical psychologists and psychiatric nurses; also the role, function, and administration of the community mental hospital. Other committees have dealt with such subjects as that of drugs liable to produce addiction, the problem of alcoholism, the study of homeless children, also the care of the mentally subnormal.

Another service rendered by the Mental Health Section has been that of providing consultant assistance to individual governments. The consultant surveys existing facilities in the particular field in which advice has been sought and submits recommendations for development.

A particularly successful type of activity in the mental health program has been the interchange and dissemination of knowledge by means of international seminars. Experts bring to these seminars new knowledge which is ready to be applied. The application is then discussed by representatives from different countries. These representatives have particular knowledge of the regional background, also the stimulus to apply the knowledge and experience on return to

their own countries. These seminars have covered many mental health problems, frequently subjects especially acute in certain regions.

In addition to its many other services provided by WHO has been that of granting fellowships. Usually these have been granted for one of two purposes: either to enable suitable persons chosen by their governments to attend regional seminars, or to enable nationals at the request of their government to train in other countries in order that they may be better equipped to further mental health work in their own countries. The subjects of study by persons receiving the second type of fellowship have usually been general mental health, psychiatry, child psychiatry, and child welfare and guidance. A few fellowships were awarded for the study of such subjects as alcoholism, epilepsy, electroencephalography, psychiatric nursing, clinical psychology, psychosomatic medicine, juvenile delinquency, and other problems.

It is obvious that through its Mental Health Section WHO is not only contributing much to our knowledge of social and other problems growing out of mental and personality disorders but is disseminating this knowledge to a breadth equalled by no other agency.

ARTHUR P. NOYES, M. D.

## COMMENT

### SOUTHERN GOVERNORS' CONFERENCE

The Governors of the 16 Southern States met in conference at Boca Raton, Florida, November 11-13, 1954. Most of the Governors were present, and I had the privilege of being present by invitation from the Governor of Virginia to participate in that portion of the program relating to mental health matters, especially the problems of training and research in this field.

I must say that I have never seen a group of top level officials, especially the younger governors, more enthusiastic toward this problem as it relates to their respective states, and the very positive expression that it is urgent that something of a more constructive nature must be done.

A review of events leading up to this meeting may be appropriate. The Governors' Conference in 1953 at Seattle, Washington, unanimously endorsed the report, "Training and Research in State Mental Health Programs," prepared by the Council of State Governments. That report strongly recommended interstate compacts and arrangements for the training of psychiatric personnel and joint participation by the States in mental health research. It also recommended periodic regional mental health conferences for the furtherance of these objectives.

In November 1953, the Southern Governors' Conference at Hot Springs, Virginia, took further action in regard to the above-mentioned action, and recommended:

(1) That the Southern Regional Education Board begin an immediate survey of facilities for the training of psychiatric personnel in the South, and that it report to this Conference those institutions best qualified to take additional students in the psychiatric disciplines from states which have no such training facilities.

(2) That the Board also initiate a survey of institutions doing mental health research in the South, and that it recommend to this Conference those institutions capable of being enlarged to do additional research.

(3) That upon completion of the above surveys by the Board, but in any case not

later than July 30, 1954, a Southern Regional mental health conference be held to discuss the surveys and draw up interstate compacts in mental health research and training.

(4) That, in the interim, the individual states make official surveys of their training and research facilities—with particular emphasis upon raising mental institutions in each state to the level of residency or affiliate accreditation—and that results of these surveys be presented to the 1954 regional mental health conference.

(5) That the Southern Regional Education Board be requested to report the results of its study and any action taken to the 1954 Southern Governors' Conference.

The Southern Regional Education Board obtained a special grant from the National Institute of Mental Health, employed a project staff, named a commission on Mental Health Training and Research which latter group defined the objectives and scope of the project and requested the Governors of the several states to appoint local mental health training and research committees which was done.

The state committees made official surveys in their respective states of their needs and resources in mental health training and research and compiled recommendations for intrastate and interstate action.

The findings of the surveys made by the individual state survey committees can be summarized as follows: (1) Mental disorders are a growing burden upon the states. (2) The states must have more trained personnel in mental health programs. (3) The states need new knowledge.

In accordance with the contents of the Governors' recommendations a regional conference was held in Atlanta, Georgia, July 21-24, 1954. This conference was attended by representatives from each of the states, about 170 in number, and included, governors, legislators, lay people of varied interests and professional people of various disciplines.

This conference recommended that: (1) The states should increase appropriations to their universities and agencies which prepare mental health personnel and are able to undertake mental health research. (2) States which need trained people but lack training facilities should first consider establishing regional arrangements with states or universities which can provide opportunities for training. (3) The states should jointly encourage the growth of regional mental health research centers. (4) The states should establish a Regional Council on Mental Health Training and Research.

At its November 11, 1954, meeting in Boca Raton, Florida, the Southern Governors' Conference accepted the report of the Southern Regional Education Board and passed the following resolution:

WHEREAS, The Southern Governors' Conference at its meeting on November 4, 1953, recommended that the Southern Regional Education Board survey mental health training and research facilities in the 16 states of the Conference, and report the results of its study to the 1954 Southern Governors' Conference, and

WHEREAS, Committees which the governors of the various states appointed and the Southern Regional Education Board have surveyed facilities in accordance with the recommendations of the 1954 Conference, and

WHEREAS, The findings and recommendations of the survey point toward the need for increased emphasis on training and research in mental health within each state; for interstate agreements on development and use of facilities for training and research in mental health; and for the establishment and support of a Regional Council on Mental Health Training and Research as a means of assisting states, and

WHEREAS, These findings and recommendations have been formulated and endorsed by a distinguished Commission, by state committees and heads of state programs of mental health, by the Regional Conference on Mental Health Training and Research, and by the third annual Legislative Work Conference on Regional Education,

Now, Therefore, *Be It Resolved*, That the Southern Governors' Conference accept the recommendations for increased emphasis on training and research in mental health within the states, for interstate arrangements on development and use of facilities in mental health training and research, and for the establishment and support by the states of a Regional Council on Mental Health Training and Research to assist states to achieve these ends, and

*Be It Further Resolved*, That the Southern Governors' Conference ask the Southern Regional Education Board to organize the proposed Regional Council on Mental Health Training and Research, and encourage each state to participate in the work

of the Council by appropriating to the Board \$8,000 a year to support the Council's operation, use of such funds to be restricted to activities of the Council, and

*Be It Further Resolved*, That the Southern Governors' Conference express its appreciation to the Southern Regional Education Board; to the many professional and lay persons who participated in this historic effort, and particularly to Dr. Nicholas Hobbs, Project Director, for his leadership; the 16 state chairmen and the many committee members for their vigor and devotion; and the National Institute of Mental Health, Public Health Service, for its financial and professional assistance.

Upon receipt of the above mentioned resolution the Southern Regional Education Board passed the following resolution:

WHEREAS, Upon request of the Southern Governors' Conference the Southern Regional Education Board has organized and conducted a survey of mental health training and research in the Southern States, and

WHEREAS, The Southern Governors' Conference has endorsed the recommendations of the survey, and has requested the Southern Regional Education Board to organize a Regional Council on Mental Health Training and Research, and has encouraged the states to participate by making appropriations to the Southern Regional Education Board for this purpose, and

WHEREAS, The organization of such a Council clearly lies within the purposes and powers of the Southern Regional Education Board as defined by the Southern Regional Education Compact,

Now, Therefore, *Be It Resolved*, That the Southern Regional Education Board agree to establish said Regional Council on a temporary basis if funds can be obtained from other than state sources for the support of the Council pending the availability of appropriations by state legislatures, and

*Be It Further Resolved*, That the Southern Regional Education Board agree to organize said Council as an integral part of its operation, when at least 8 states make funds available for that purpose.

It should be said by way of clarification that although the governors unanimously adopted the resolution some of the older governors made it clear that by so doing they were not committing their states to the expenditure of money.

I think the task will be accomplished but there is still some work to be done to get the required number to make the necessary financial contribution.

So in the South we continue to make progress against passive and sometimes stubborn resistance. Even though we have a green light, sometimes the motor stalls, especially on a cold day, and by the time it is started again the light is red.

JOSEPH E. BARRETT, M. D.



## NEWS AND NOTES

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**CENTENNIAL OF SAINT ELIZABETHS HOSPITAL.**—On January 15, 1855, Saint Elizabeths Hospital in Washington, D. C., admitted its first patients. This year it celebrates its centennial. Now a component unit of the U. S. Department of Health, Education, and Welfare, it was established by Act of Congress as the Government Hospital for the Insane. Dorothea Lynde Dix (1802-1887) was responsible for this action by the Congress, and her name will be given this year to the new 420-bed admission and treatment building at Saint Elizabeths, the Dorothea Lynde Dix Memorial Pavilion.

On May 5 and 6, 1955, there will be held at the Hospital a 2-day meeting with invited guest speakers of international repute. A historical pageant depicting the life and works of Miss Dix—planned, written, and enacted by patients of the hospital—will also be presented at this time.

During its hundred years Saint Elizabeths Hospital has had but 5 superintendents, including the present incumbent, Dr. Winfred Overholser. All 5 have been presidents of The American Psychiatric Association. The hospital has never been identified with any single school of psychiatric thought. It has trained thousands of psychiatrists, psychologists, psychiatric nurses and social workers, ministers, occupation therapists, and others engaged in the treatment of the mentally ill. The several superintendents, notably Drs. White and Overholser, as well as a number of members of the staff (Bernard Glueck, John Lind, Ben Karpman), have enjoyed outstanding reputations as forensic psychiatrists.

Shortly after the Russo-Japanese War, military psychiatry was introduced to this country at Saint Elizabeths Hospital and, during the past 40 years, there has been a close liaison between the psychiatric division of the military medical services and the Hospital. In World War II, hundreds of medical officers, nurses, corpsmen, and Red Cross workers received their psychiatric orientation here. The only public mental hospital in

America which offers an A.M.A.-approved internship is Saint Elizabeths.

Inquiries concerning the Centennial Celebration may be addressed to the Centennial Commission of Saint Elizabeths Hospital, Washington 20, D. C.

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**MISS ANNIE GOODRICH, DEAN OF NURSES.**—The nursing profession lost one of its great leaders in the death on the last day of 1954 of Miss Annie Warburton Goodrich at the age of 89.

During her extraordinary professional career of more than 60 years, Miss Goodrich had held many of the highest posts in the nursing world, some of them unique. She had established at Yale University the first graduate school of nursing in the world, and was the first woman dean at that university. The U. S. Army's first school for nurses was another monument to her professional activities, and she had also held the appointment of special consultant in nursing education to the U. S. Public Health Service. For her work in setting up training for nurses serving in World War I, Miss Goodrich was awarded the Distinguished Service Medal. The first graduating class (1921) of the Army School of Nursing, established by Miss Goodrich, numbered 500, believed to be a record figure.

She was devoted to all branches of nursing education and the demands upon her time were many. Even after her retirement she traveled and lectured extensively. Dr. Burlingame took advantage of her advisory collaboration by securing her services as consulting director of nursing at the Neuropsychiatric Institute of Hartford Retreat (1938-1941).

Miss Goodrich had served as president of various national and international nursing organizations, had been given honorary degrees by several universities, and awarded medals by France and Belgium.

At the New York World's Fair in 1939, Miss Goodrich, for her contributions to the



public welfare, was named one of the 12 outstanding women of the last 50 years.

**THORAZINE AND RESERPIN STUDIES.**—The New York Department of Mental Hygiene has been conducting tests in 20 hospitals under the jurisdiction of the Department and directed by Dr. Henry Brill, assistant commissioner in charge of research.

Approximately 1,400 patients with various diagnoses, many of them in disturbed mental states and hospitalized for years have been treated with thorazine since May 1954. Seven hundred patients were treated with reserpine. In both groups there was relief from anxiety and emotional tension, and the patients were more comfortable and accessible to other types of therapy.

In a statement, January 19, 1955, Dr. Brill said: "Treatment indications are that thorazine and reserpine are valuable supplements to existing therapies and in some cases have replaced electric shock and lobotomy. . . . about 70% of properly selected patients have shown significant improvement. . . . On the basis of these findings we have decided that thorazine and reserpine will be used in the treatment of all suitable patients in Department of Mental Hygiene institutions."

**AMERICAN MEDICAL WRITERS' ASSOCIATION.**—This Association, an affiliate with the American Association for the Advancement of Science, and being "America's Only Association Devoted to Improvement of the Written Word in Medicine," will hold its twelfth annual meeting at the Hotel Jefferson in St. Louis, Missouri, September 30 to October 1, 1955.

The American Medical Writers' Association was organized in 1940 as the Mississippi Valley Medical Editors Association and began its career with 27 members. In 1948 it was reorganized as the American Medical Writers' Association, and has presently 603 members.

One of the services offered is the editorial revision of manuscripts intended for medical journals at the nominal charge of 4 dollars for manuscripts up to 1,000 words, and 3 dollars for each additional 1,000 words or less. This service is limited to members of the American Medical Writers' Association

and is intended "to help maintain and advance high standards of medical literature."

The address of the secretary, Harold Swanberg, M. D., is 209-224 W. C. U. Building, Quincy, Ill.

**KAREN HORNEY LECTURE.**—The third annual Karen Horney Lecture will be given by Dr. Kenneth E. Appel, professor of psychiatry, University of Pennsylvania, on the evening of March 23, 1955, under the sponsorship of the Association for the Advancement of Psychoanalysis, at the New York Academy of Medicine. The lecture will be preceded by a dinner in the President's Gallery of the Academy. Dr. Appel's subject will be "Principles and Practices of Psychotherapy."

**DELAWARE STATE MEDICAL JOURNAL MENTAL HYGIENE NUMBER.**—The annual Mental Hygiene number of this Journal, of which Dr. M. A. Tarumianz is the associate and managing editor, appeared in August 1954. Nearly all of the articles in this issue were contributed by members of Dr. Tarumianz' staff at the Delaware State Hospital at Farnhurst.

In an editorial comment, Dr. Tarumianz expresses a hope that the governor of Delaware will appoint a committee to consider the need for establishing a medical school at the State University, a project that has been under discussion for some time.

**RESEARCH ON JUVENILE DELINQUENCY.**—Fifteen experts in the fields of psychology and psychiatry will participate in a conference on the psychological causes of juvenile delinquency being sponsored by the Welfare and Health Council of New York City. The conference, made possible by a gift of \$2,500 from the Edward L. Bernays Foundation, will be held March 4-5, at the Princeton Inn, Princeton, New Jersey.

The Welfare and Health Council is the voluntary planning and coordinating agency for more than 380 public and private social service organizations in New York City.

**DR. COLE HEADS BIOPHYSICS LABORATORY.**—Surgeon-General Leonard A. Scheele of the U. S. Public Health Service has an-

nounced the appointment of Dr. Kenneth S. Cole as director of biophysics in the National Institute of Neurological Diseases and Blindness at Bethesda, Maryland.

Dr. Cole, formerly technical director of the Naval Medical Research Institute, is an authority on the biophysics of the nervous system and the transmission of nerve impulses.

**NEW JERSEY NEUROPSYCHIATRIC ASSOCIATION.**—This association has elected the following officers for the year 1955: president, Dr. J. Lawrence Evans, Englewood, N. J.; president-elect, Dr. Evelyn Ivey, Morristown; secretary, Dr. Ira S. Ross, Newark; treasurer, Dr. David McCreight, Marlboro; trustees: Drs. Robert Garber, Princeton; William Furst, East Orange; Leon Reznikoff, Weehawken; Luman Tenney, Princeton; John Kelley, New Brunswick; and Floyd Fortuin, Paterson. The past-president is Dr. Frank P. Pignataro, Red Bank, N. J.

**THE WASHINGTON PSYCHIATRIC SOCIETY.**—At its meeting, January 14, 1955, this society elected the following new officers: Dr. Marshall DeG. Ruffin, president; Dr. Winfred Overholser, president-elect; Dr. Marvin L. Adland, secretary; Dr. Norman Taub, treasurer. Council members are Dr. Ruffin, chairman, and Drs. Marvin L. Adland, Robert A. Cohen, Douglas Noble, Winfred Overholser, Seymour J. Rosenberg, and Norman Taub.

The Washington Psychiatric Society and the Metropolitan District Branch have voted to combine organizations, effective July 1, 1955, and the new organization will be known as The Washington Psychiatric Society, a District Branch of the APA.

**SECOND INTERNATIONAL CONGRESS OF NEUROPATHOLOGY.**—The Second International Congress will be held in London, September 12-17, 1955, and is being organized by the British Committee to the Congress.

Messrs. Thos. Cook & Son, Ltd., have been appointed as official agents for traveling arrangements.

The preliminary meeting for the Second International Congress, held in London,

July 15, 1954, proposed the following main topics for discussion in plenary sessions: (1) Cytochemistry of the neurons in relation to injury and other environmental changes, excluding lipoidoses. (2) The blood-brain barrier in inflammation and allergy. (3) Problems in the malignancy of gliomas.

The chairman of the American committee to the Congress, appointed by the American Association of Neuropathologists, is Dr. Armando Ferraro, 722 West 168th Street, New York 32, N. Y. Papers for the Congress program, not exceeding 10-15 minutes' reading time, may be sent to Dr. Ferraro.

Members of the American Association of Neuropathologists, the American Neurological Association, The American Psychiatric Association, and the American Association of Pathologists, interested in presenting papers dealing with neuropathological problems, are cordially invited to do so.

**RORSCHACH TEST WORKSHOPS.**—The Department of Psychology, University of Chicago, announces its 1955 summer workshops in the Rorschach test, to be conducted by Dr. S. J. Beck the weeks of July 11-15 and July 18-22. The basic processes in test evaluation will occupy the first week. The second week will be devoted to problems of advanced clinical interpretation, exemplified by children in more disturbed states and by adults in milder neurotic conditions. Workshop I may be taken by students at, or ready for, the intern level. Admission to Workshop II is limited to psychologists and psychiatrists in clinical positions or practice. For full information, write to the Executive Secretary, Department of Psychology, The University of Chicago, 5728 South Ellis Avenue, Chicago 37, Ill.

**SUMMER SCHOOL OF ALCOHOL STUDIES.**—The Summer School of Alcohol Studies of the Laboratory of Applied Physiology, Yale University, will hold its thirteenth annual session during the 4-week period, June 27 to July 22, 1955.

Lecturers will be drawn from the Yale University faculty and from other institutions. Specialists in various fields, such as,

medicine, religion, education, and public health, will also address the student body.

Men and women engaged professionally in activities in which a knowledge of the problems of alcohol would be an advantage will be considered qualified for admission. All other applicants will be required to have a college education or equivalent experience.

For further details address the Registrar,

Summer School of Alcohol Studies, 52 Hillhouse Avenue, Yale Station, New Haven, Conn.

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**AMERICAN ORTHOPSYCHIATRIC ASSOCIATION.**—The thirty-second annual meeting of this association is being held from February 28 through March 2, 1955, at the Hotel Sherman, Chicago, Illinois.

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#### DISCIPLINE

Thinking about sense-objects  
Will attach you to sense-objects;  
Grow attached, and you become addicted;  
Thwart your addiction, it turns to anger;  
Be angry, and you confuse your mind;  
Confuse your mind, you forget the lesson of experience;  
Forget experience, you lose discrimination;  
Lose discrimination, and you miss life's only purpose.

—BHAGAVAD-GITA

## BOOK REVIEWS

**USES AND ABUSES OF PSYCHOLOGY.** By H. J. Eysenck. (London: Penguin Books, 1953. Price: 2/6d.)

Dr. Eysenck's views on personality are well known to professional psychologists. He has already expounded them in a series of monographs summarizing the results of his very numerous experimental studies. These studies are remarkable for strict adherence to objectivity in observation and careful statistical assessment of their results.

This austere scientific approach has not restricted the scope of his enquiries, which have been concerned not merely with clinical aspects of mental disfunction, but have ranged widely over the whole field of social psychology. He has devised measures of antisemitism, of radicalism and conservatism, and of the authoritarian character; and has applied his experimental techniques to exploring such elusive subjects as graphology, and the sense of humor.

His own sense of humor is well to the fore in this first "popular" presentation of his opinions on current topics in psychology. It tempers the trenchant criticisms which he directs against schools of thought which he considers less than scientific. Reading his vigorous, not to say explosive, chapters one is reminded of a colloquy from Boswell:

"Dr. Johnson: Well, we had a good talk."

"Boswell: Yes, Sir, you tossed and gored several persons."

In turn, psychoanalysts, holists, believers in the efficacy of the interview as a selection device, psychotherapists who believe that they contribute to their patients' getting better, and educationists whose views do not concur with Dr. Eysenck's are chastised with bell, book, and candle. An especially vigorous drubbing is reserved for Geoffrey Gorer, whose essay on the American character is singled out as one of the abuses of psychology.

These polemics could be exasperating were the author's *hubris* uncontrolled. He clearly shows, however, both in his own work and in his judgment of others that he respects originality of thought whenever it is combined with readiness to submit to scientific testing of the hypotheses to which it has given rise. Ambiguity and loose thinking are his enemies, and he is always willing to give credit where he feels it is due—even to Sigmund Freud. His diatribe against Freudians ends with the anathema: "Psychoanalysis is unscientific," but he goes on in this, as in each several context, to show how scientific methods of enquiry could turn interesting speculation into established fact.

Popular psychology has sometimes tended to become a debased currency, but this fresh and stimulating volume will go far to enlighten the intelligent lay reader about the achievements and the aspirations of the science as it stands today. Its scope is wide, as is shown by the four main divisions of the text—Intelligence Testing, Vocational Psychology,

Abnormal Behaviour (including sections on psychotherapy and psychoanalysis), and Social Attitudes.

This is a book which challenges, and which must provoke disagreement at one point or another, in anyone of spirit: but its provocation is of the salutary kind which leads one to think again and marshal one's evidence. Dr. Eysenck is forthright in condemning muddled thinking, but humble in the face of well-substantiated facts. As a result, in spite of its polemic tone, this is a very positive and heartening exposition of the subject.

G. M. CARSTAIRS,

Institute of Psychiatry,  
London, England.

**LA GUÉRISON PSYCHOLOGIQUE.** By C. G. Jung. Introduced and arranged by Dr. Roland Cahen. (Geneva: University Library, Georg & Co., 1953. Price: 900 fr.)

A few words as to Dr. Cahen's purpose in preparing this book: The views and teachings of Jung relating to psychotherapy are to be found throughout his numerous published contributions. A dozen years or so ago Cahen expressed the wish that Jung might bring together in organized form in a single manual the substance of all this scattered material. But Jung was preoccupied with many other subjects, as his later books have attested, and left the task to Cahen. The present volume is the result; it took 10 years to produce it. Its title was inspired by that of the master work—*Les Médications Psychologiques*—of Pierre Janet, "*ce précurseur de génie qui fut le maître de Jung*."

As everyone knows, Jung was one of the original Freudians; but the "beloved son" became a heretic, repudiating fundamental Freudian principles to set up his own system of psychology, personality evolution, paleosociology, and mysticism. His prodigious mind could not be confined within clinical limits, but surveyed also the worlds of folklore, philosophy, religion, mythology, and alchemy. (The transmutations the alchemists arrived at, he believes, throw light on the psychological metamorphosis which is the goal of psychotherapy.)

From all this background it was inevitable that Jung's kind of psychotherapy should be *sui generis*. At the same time in its breadth it would make room for individual differences among practitioners. First of all it is needful for the physician practicing psychotherapy to strive to free himself to the very utmost of preconceptions (ideally of course impossible). Each patient must be accepted as a unique personality presenting unique problems; and, just as important, each physician will evolve his own personal method—"sa methode c'est lui." So true is this, the author comments, that "any physician who announces that he will give treatment according to this or that authority, by such limitations compromises the very purposes of his treatment."

And further, "The most important curative factor in psychotherapy resides in the personality of the physician."

Tracing the history of twentieth century psychotherapy one observes that each phase "porte en soi un cachet singulier: celui du *définitif*." Thus, the author notes, one finds advocates of catharsis who seem never to have heard of the interpretation of dreams, Freudians who will have nothing to do with the psychology of Adler, Adlerians who take no stock in the unconscious. "Chacun semble captivé par cette séduction du définitif qui émane de la phase, quelle qu'elle soit, où il se trouve. . . ." Together with the broadest perspective in psychology and human relations, self-knowledge and self-discipline are indispensable to the therapist. The final phase of self-training for the practice of his profession and likewise the ultimate goal in the treatment of his patient Jung calls metamorphosis of the personality.

Psychotherapy becomes a form of dialectic, which originally was the art of conversation among the ancient philosophers. In the Jungian dialectic between physician and patient the physician must "renoncer à toute prétension de savoir préalable et infaillible, à toute autorité, à toute volonté, d'influence, qu'elle soit massive et délibérée ou, pire encore, inconsciente, et insidieuse." In this ideal rapport the questionably possible is aimed at, namely, the elimination of any element of suggestion. That the physician should free his mind to the utmost of preconceived ideas goes without saying, and that he should assume the role of "a co-participant in a process of individual development. . . . It is a supreme rule of the dialectic procedure to accord to the individuality of the patient the same dignity and the same rights to existence as to that of the physician."

There follow detailed discussions of the practice of psychotherapy, its means and objectives, based on Jung's psychology. This completes the first of the two parts into which the work is divided.

The second part includes an outline of the evolution of the Jungian method divided into decades beginning with 1910. In the chapter dealing with the second decade, "the situation of psychotherapy in 1920," Jung discusses the differences between the doctrine of Freud and his own, dutifully endeavoring to make allowance for his own *parti pris*. As Jung puts it Freud's views are "the most accurate expression of his personal psychology . . . of what he has subjectively experienced. . . . He is himself the most obvious example of his own psychology. . . . Others than Freud have other psychologies," for example, Alfred Adler. Jung reproaches both schools for considering patients from a pathological standpoint, "and uniquely in the perspective of their defects. . . . I prefer to discipline myself to understand the human being in the perspective of health and to free the patient from this psychology that Freud describes on every page of his works."

Jung elaborates several points on which his *Weltanschauung* contrasts with that of Freud. There is for example "l'incapacité de Freud à

comprendre l'expérience religieuse." Jung takes for granted the validity of religious experience and exposes himself to the charge of mysticism. Another of the traits which, as he says, "distinguishes me most emphatically from Freud is doubtless this recognition of the subjective character of every psychology erected by an individual investigator."

At all events the psychotherapist "ne saurait trop se hâter d'écarter tout schématisme, tout dogmatisme, tout esprit doctrinaire, si l'on veut éviter que le développement de notre thérapeutique n'aboutisse à une impasse."

C. B. F.

THE PRACTICE OF PSYCHOTHERAPY. By C. G. Jung. Translated by R. F. C. Hull. (New York: Pantheon Books, 1954. Price: \$4.50.)

It is of interest to compare this volume with the French treatise on the psychotherapy of Jung issued in 1953. In the latter work, *La Guérison Psychologique*, Dr. Roland Cahen has brought together all the material dealing with psychotherapy in the numerous publications of Jung. This material he has then arranged and adapted to produce an original book which is his own. When he showed the manuscript to Jung, the latter as he turned the pages inquired whether this or that chapter was his or Cahen's.

The present work is indubitably Jung's. It does not claim to present everything that Jung has written on psychotherapy but it does offer his most important papers, many of them translated here for the first time. Each chapter represents a separate paper or monograph and the bibliographical references are given. The dates of the several items range from 1928 to 1951.

This part of the book, dealing specifically with the practice of psychotherapy, runs to 160 pages. (The Cahen text fills 316 pages.) But in the present volume is included a lengthy dissertation (177 pages) on the Psychology of Transference, first published as *Die Psychologie der Übertragung* in 1946. Here Jung is not writing for the novice; he assumes moreover some familiarity with his earlier book *Psychology and Alchemy* (v. review, this Journal, Nov. 1954). The reason is that he discerns in the situation that analysts call transference a striking and close parallelism with the symbolism and imagery of alchemy.

From the original Freudian concept of *Übertragung* Jung has diverged. "Although I originally agreed with Freud that the importance of the transference could hardly be overestimated, increasing experience has forced me to realize that its importance is relative. The transference is like those medicines which are a panacea for one and pure poison for another. In one case its appearance denotes a change for the better, in another it is a hindrance and an aggravation, if not a change for the worse, and in a third it is relatively unimportant. Generally speaking, however, it is a critical phenomenon of varying shades of meaning and its absence is as significant as its presence."

But it is the alchemical significance that is of particular interest; and here, as Jung forewarns,



the amateur is likely to find himself beyond his depth. We had best stay on the shore and only look out o'er the mystic waves. The "mystic marriage" of the alchemist which became the chemical combination of the chemist represented an "affinity" of the bodies drawn together and these were thought of in human terms as male and female. This mystic union is expressed in Christian mythology as the marriage of Christ and the Church, also, as often depicted in art, Christ becomes the celestial bridegroom of women devoted to the saintly life. In other systems too the same concept occurs, as in the mystic union of the soul with the deity in states of trance or illumination. A similar process is postulated in the "unconscious" transfer by the neurotic patient of his maladjustment to the doctor. "This bond is often of such intensity that we could almost speak of a 'combination' . . . In Freudian technique the doctor tries to ward off the transference as much as possible. . . . Hence the doctor's preference for sitting behind the patient." Jung states reassuringly that this phenomenon "can happen [also] to the teacher, the clergyman, the general practitioner, and—last but not least—the husband."

An untaught person cannot hope to follow Jung through the multitudinous intricacies of this tenuous bond between patient and doctor, if indeed it were desirable to do so. In this section of the book also are long theological discussions with Latin quotations from the Church fathers which may not strike one as particularly germane to scientific medicine or therapy, although it would be heresy to the all-the-way Jungian to say so. But these are all exemplified in the philosophy of alchemy and in the psychology of the unconscious. "Alchemy describes, not merely in general outline but often in the most astonishing detail, the same psychological phenomenology which can be observed in analysis of the unconscious process."

There follows "An Account of the Transference Phenomena Based on the Illustrations to the *Rosarinae Philosophorum*." There are numerous illustrations from the alchemical text with ample exegesis reflecting profound scholarship before which the reviewer can only bow humbly and impotently.

The author reassures us in an Epilogue that his illustration of his subject by means of alchemical symbolism "must be regarded as a mere experiment," and that he has "no desire to attribute any conclusive significance to it." He considers it worth while for the light it throws on the transference phenomenon, which "is without doubt one of the most important syndromes in the process of individuation; its wealth of meanings goes far beyond mere personal likes and dislikes. By virtue of its collective contents and symbols it transcends the individual personality and extends into the social sphere, reminding us of those higher human relationships which are so painfully absent in our present social order, or rather disorder. . . . It is as though the psyche were the indispensable instrument in the reorganization of a civilized community as opposed to the collectivities which are so much

in favor today, with their aggregations of half-baked mass-men. This type of organization has a meaning only if the human material it purports to organize is good for something. But the mass-man is good for nothing—he is a mere particle that has forgotten what it is to be human and has lost its soul. What our world lacks is the *psychic connection*; and no clique, no community of interests, no political party, and no State will ever be able to replace this."

C. B. F.

**A PHILOSOPHICAL STUDY OF THE HUMAN MIND.** By *Joseph Barrell*. (New York: Philosophical Library, 1954. Price: \$6.00.)

This book is a study of personality, a classification and diagnosis of types of normal personality. It owes much to James and Jung, and also draws heavily upon the author's own personal experience and his general reading in literature. By its title it claims to be a philosophical study, and as such it will be discussed here. The author considers philosophy to be wisdom about the human mind—"wisdom possessed for the most part by psychologists," and it is his purpose to communicate this wisdom to the lay public. He is saying in short that philosophy may be equated with psychology. This has been said before, but it is a momentous proposition. On it hinges the entire importance which the author appears to attach to his book. It is therefore scarcely credible that he has not given it a particle of discussion by way of justification. He gives a further reason for calling the work philosophy, namely, that it represents a synthesis of the various truths obtained from different schools of psychology. Such an effort of amalgamation is regarded as a specifically philosophic task. This suggests, contrary to the first proposition, that philosophy is something distinct from psychology. But is not the synthesis of truths in any special field of scientific inquiry, or the making of them to cohere in a system of explanation, one of the principal aspects of scientific inquiry? The physicist is continuously engaged in doing it in physics, and the psychologist in psychology. There is nothing in the least "philosophical" as opposed to "scientific" about such an activity. It belongs to the very nature of scientific inquiry itself. It would be a pity if, as seems possible, Professor Barrell has committed himself to missing the audience for whom his book was written.

R. F. McRAE,  
Dept. of Philosophy,  
University of Toronto.

**THE PAINFUL PHANTOM.** By *Lawrence C. Kolb, M.D.* (Springfield: C. C. Thomas, 1954. Price: \$1.50.)

This is a monograph of the American Lecture Series which superbly discusses the psychology, physiology, and treatment of the painful phantom. A list of references is appended.

Kolb points out that the observation has been made that the painful phantom, in contrast to the

painless phantom, is infrequently encountered; that a complaint of pain may represent an affective association or symbolization; that references to the phantom and the superstitions attached to it extend far into the past. Kolb states that "the occurrence of the phantom phenomenon is best explained as the patient's enduring concept of his total body image after the loss of a part through amputation."

He found evidence that the amputee tends to project his defect into his environment. The monograph contains several excellent case histories.

According to Kolb, failure of the amputee to make the necessary adaptations suggests the existence of a co-existing personality disturbance. He states "amputation leads to an upsurge of anxiety owing to the distortion of the patient's concept of his body and therefore of himself. This distortion requires readaptation in relation to others and to society."

This monograph of 50 pages is of inestimable value to all physicians and surgeons who must deal with the problem of amputations, of phantom limbs, and with the rehabilitation of the amputee.

T. L. SONIAT, M. D.,  
Ochsner Clinic,  
New Orleans, La.

**PSYCHIATRIC NURSING.** Fifth Edition. By Katharine McL. Steele and Marguerite L. Manfreda. (Philadelphia: F. A. Davis, 1954.)

In this edition of their text the authors have added 5 new chapters: Personality Development, Observation of Symptomatic Behavior, Observation of Neurologic Symptoms, Psychophysical Control of Disturbed Patients, and Postpartum Psychoses and Neuroses. Toxic psychoses are discussed elsewhere, and the new chapter on postpartum psychoses is a discussion of the type of personality thought to be most susceptible and the possibilities of psychiatric prevention. The former chapter on Educational Therapy has become a more inclusive one, now called Therapeutic Activities.

There will be full agreement with the authors' statement that one of the most difficult and controversial problems of psychiatric nursing is the skilful management of acutely disturbed patients; nor need they apologize for special attention to this problem, since the book is quite largely concerned with necessary techniques. This chapter contains most useful illustrations of safe and effective methods of control; but perhaps more useful still is the emphasis on methods of foreseeing and preventing the development of emergency situations.

The final chapter, written by a male sociologist, is an attempt to show the role the public health nurse should play in the psychiatric field in the community, particularly in prevention. The author stresses the point that the public health nurse "should be able to recognize incipient psychiatric problems and to teach the principles of sound mental hygiene."

He indicates her functions in home, industry, school, and the armed forces: and emphasizes the nurse's long and continuous relationship with the patient "from the time of prenatal existence and

birth through the crises of life down to death." She has much to do with laying the foundations of mental hygiene for babies and their mothers. He regrets therefore that so few public health nurses have had specialized psychiatric experience. It is unfortunately too true that is so. The psychological aspects of their work and specifically the subject of mental hygiene are not entirely neglected in the preparation of public health nurses, but few have had the vivid experience of actual contact with the mentally ill as they have with the physically ill. This is one of the results of an unsound system of nursing education, now in process of change. Basic preparation for nursing should of course be general; it must consider equally the patient in the hospital and in the community at large, so it must make no artificial distinction between the psychological and the physical aspects of that patient.

N. D. FIDLER, B. A., R. N.,  
School of Nursing,  
University of Toronto.

**THE TECHNIQUE OF PSYCHOTHERAPY.** By Lewis R. Wolberg, M. D. (New York: Grune & Stratton, 1954. Price: \$14.75.)

Under the biography of the author of this book in the 1950 Biographical Directory of The American Psychiatric Association one finds: "Publications:—'Technics of Psychotherapy' (1950)." Apparently much more time was required in the writing and publication of this book than was originally planned or else its concept was changed. Neither would be surprising considering the author's purpose as stated in the Preface: "to delineate a basic sound structure of good psychotherapy."

The result of his efforts is a rather large but easily readable book of some 53 chapters plus a case history which comprehensively summarizes the whole field. The author's eclectic approach is well exemplified in the first chapter. It is titled by a question (What Is Psychotherapy?), states and discusses his answer ("a form of treatment for problems of an emotional nature in which a trained person deliberately establishes a professional relationship with a patient with the object of removing, modifying, or retarding existing symptoms, of mediating disturbed patterns of behavior and of promoting positive personality growth and development"), and then adds for comparison definitions by 13 others.

In the earlier part of the book the emphasis is on the general principles of psychotherapy, on the different "kinds" of psychotherapy, and on the strategy of the various phases of psychotherapy. The larger part of the book deals with the tactics of treatment. Both sections are useful. Few, if any, approaches are not considered; for example, under "supportive therapy" one finds such treatments as dianetics, shock therapies, and psychosurgery. Drawing on his own clinical experience and that of his pupils, the author gives example after example of how specific situations and problems may be handled. This is done by well-chosen quotes of the patient and the therapist. There are

not many books written in this manner, which the beginning psychotherapist can read to learn a way of handling a problem, and which the more experienced therapist can use for comparison. The tactical problems brought up for discussion are encyclopediac.

The author perhaps does not quite achieve his goal but in summarizing many of the ideas about the strategy and tactics of psychotherapy he has done a valuable job which anyone particularly interested in psychotherapy will find useful. He may not define "the" technique, but he delineates "a" technique.

A bibliography, recommended reading list, and clinical forms are appended.

The typeface and paper, although they make for ease of reading, also make the book clumsily large for lap reading.

J. MARTIN MYERS, M. D.,  
Pennsylvania Hospital.

**THE ROOTS OF PSYCHOTHERAPY.** By Carl A. Whitaker, M. A., M. D., and Thomas P. Malone, M. A., Ph. D. (New York and Toronto: Blakiston, 1953. Price: \$4.50.)

The preface of this book states that it proposes "a scientific formulation of the art of psychotherapy." In so far as it is possible to make a science of an art, the authors have succeeded in a brilliant manner.

They are bound by no rigid allegiance to any school of psychotherapy but it is obvious that the broad stream of their argument results from the joining of many tributaries—the largest from Freud but of little less importance also from Jung, Rank, Sullivan, Fromm-Reichmann, and Franz Alexander.

One is immediately impressed that the authors accept the inherent dignity of the individual, whether patient or physician, yet they are not blinded to the human imperfection of each. Their emphasis is on what is "constructive"; "positive"; "well" in the patient. The emphasis is on synthesis rather than analysis; the present rather than the past.

This attitude has broken through the chains of some psychiatric thinking which has been bound to a past where searching for origins was first necessary to form a basis for therapeutic operations. The emphasis on "psychotherapy"—"the therapist" rather than on "psychoanalysis" or "the analyst" is a healthy omen.

The unconscious is "not just a reservoir of pathology" but a "healthy segment (of the personality) to be used productively and creatively."

This book has excellent chapters on the "Biological Basis of Psychotherapy" and "Adaptation," in which are stressed the natural thrust of life toward balance and health—the healing of any injury. This potential of homeostasis becomes the keystone of their approach to psychotherapy. The psychiatrist, to quote, is "a catalyzer aiding in the emergence of the individual's potential energy." References to psychotherapy in terms of a catalyzer abound in

the book, yet the authors repeatedly state the importance of the therapist's reacting deeply, responding freely himself in the therapeutic procedure. Though this involves an obvious contradiction, one can appreciate the point of view of the authors who want to deemphasize the active, verbal participation of the therapist and stress the mute but powerful communications between therapist and patient which express themselves in things unsaid, but felt and responded to as in changes in muscular tension, or the tone, timbre, rhythm, etc., of voice.

It is a relief to read of the therapeutic help available in our culture rather than to be reminded again of the pathological miasma of our milieu.

From Chapters VII through XV the authors discuss the process of psychotherapy, from the point of view of the patient and the therapist both in interaction as a mutual experience. Chapter X, "The Process of Psychotherapy" is a most fascinating one. Here therapy is perceived as divided into 3 parts—the presymbolic phase, the symbolic phase, and the ending, and as clear an account as the reviewer has ever read of what happens in any successful psychotherapy is given. In this chapter is brought out (and further developed in succeeding chapters entitled, "Anxiety and Psychotherapy," "The Therapist as a Person," "Patient-Vectors in the Therapist") the problem of transference and counter-transference, its origins, expressions and its resolutions. Again the authors' objectivity mixed properly with kindness and tolerance is well displayed.

Change and growth, as inherent capacities of life, are echoed throughout each chapter. Psychotherapy is emphasized as a maturing experience for the therapist as well as the patient.

The last chapter "Some Techniques in Brief Psychotherapy" gives practical, usable suggestions to the therapist in his relationship to the patient. This chapter should prove valuable to anyone dealing with patients, whether physicians, social workers, psychologists, or religious workers.

This is an important publication. It is in itself a piece of art as well as science, created by men of courage and integrity and above all by men who are real human beings.

DONALD HAMILTON, M. D.,  
The New York Hospital,  
White Plains, N. Y.

**MODERN CLINICAL PSYCHIATRY.** Fourth Edition. By Arthur P. Noyes, M. D. (Philadelphia: W. B. Saunders, 1953. Price: \$7.00.)

Here is a comprehensive discussion of the various phases of psychiatry with few if any sectarian implications. More attention has been given to psychology, psychoanalysis, and such special fields as psychotherapy, psychosomatic conditions, and the current types of therapy. There is an admirable statement of the historical aspect of psychiatry with comments on the various outstanding figures in the development of that science. The classification of psychiatric disorders as officially adopted by The American Psychiatric Association is used.

A new format has been utilized, including changes in binding, page arrangements, etc., all of which are in keeping with the title, a credit both to the author and to the publisher.

W. C. S.

**THE STUDY OF THE BRAIN.** A Companion Text to the Stereoscopic Atlas of Neuroanatomy. By Hyman S. Rubinstein, M.D., Ph.D. (New York: Grune & Stratton, 1953.)

This concise text "represents a course in functional neuroanatomy built around the dissection of the brain." The author has made available his laboratory instructions and lecture notes as they have evolved in the course of 20 years of teaching experience. The presentation is therefore direct, logical, concise, and rounded out with functional and clinical considerations. To read the account of the pyramidal system or the hypothalamus is to acquire a grasp of the fundamentals of the anatomy, mechanism, and significance of these parts.

Because the book is a companion text to the *Stereoscopic Atlas of Neuroanatomy* by the same author there are relatively few illustrations and these are line drawings. The sketches of the stages in the dissection of the brain are the explanatory figures taken from the Atlas and are too small to be of value. The diagrams of pathways are nicely planned but tend to include too much.

C. G. SMITH, M.D.,  
Dept. of Anatomy,  
University of Toronto.

**REAPPRAISING CRIME TREATMENT.** National Probation and Parole Association Yearbook. Edited by Matthew Matlin. (New York: National Probation and Parole Association, 1953. Price: Cloth \$2.00; Paper \$1.50.)

This volume, edited by Matthew Matlin, consists of a collection of papers presented at the 24th Annual Conference of the National Probation and Parole Association, Cleveland, May 1953, and papers presented at the Congress of Correction in Toronto, October 1953. The various authors who have contributed are drawn from the ranks of active administrators, social caseworkers and other specialists in the fields of probation, parole and correctional institutions. Such names as Walter C. Reckless, Sanford Baies, and Sherwood Norman are representative of the calibre of most of the contributors.

The contributions cover an extreme range of material and although fairly representative of current opinion on the treatment and prevention of delinquency and crime, they presume a fairly intensive knowledge of the problems dealt with. The volume can therefore not be considered a text in these areas but rather a means of review for those actively engaged in this specialist field.

The material presented is a description of the casework process directed toward probation and parole and some of the administrative aspects of the problem. Some of the articles are concerned

with the prison and detention problem presented in dealing with the offender. A brief review is offered of legislation and court decisions relating to probation and parole in various areas of the United States. The program and organization of the National Probation and Parole Association is also described.

The publication should be of interest to active workers in these various fields, both in the casework area and those involved in administrative problems. A publication of this nature is to be recommended as a means of recording and creating ready access to the proceedings of such valuable scientific meetings.

J. W. ATCHESON, M.D.,  
Toronto Juvenile and Family Court,  
Toronto, Canada.

**WHEN MINDS GO WRONG.** By John Maurice Grimes, M.D. (New York: Devin-Adair, 1954. Price: \$3.50.)

This book is a passionate indictment of the present state hospital system. "The attack is made with the firm conviction that our present system is wrong from almost every point of view conceivable." The author devotes the greater part of his work to his attempt to prove this thesis. Indeed, psychiatry itself comes under his scathing rebuke. He refers to the official classification of mental disorders as a ponderous product of the profound cogitation of bigwigs of The American Psychiatric Association. It is described as a monstrosity, and the recent modification is an incomprehensible thing. Dr. Grimes himself is able to very simply diagnose and treat. He is quite certain that manic-depressive disorder, schizophrenia, and psychoneurosis are merely reactions to failure. He is certain of psychiatric resistance to this concept "for such a simple explanation of the functional disorders makes their psychiatric knowledge and skill seem less important, and it weakens their monopolistic hold on their lucrative mental patient practice. Indeed it makes immediately obsolete the new psychosurgery, which actually destroys brain substance, the more conservative shock therapy which merely gives the patient a series of epileptic fits, and the once frequent hypodermic injections which were often given just because the doctor did not know what else to do. And it even suggested that psychiatry, if it ever becomes effective, will have to be linked with psychology and sociology, no knowledge of which is now required of those who treat our vast armies of mental patients."

It is very unfortunate that Dr. Grimes intemperateness has interfered with his judgment. He undoubtedly has an extensive and detailed knowledge of many state hospitals and the abuses which occur in them. Many of his observations and recommendations are undoubtedly penetrating and accurate. On the other hand much of this book is so obviously an oversimplification and a diatribe that it cannot be taken seriously by the professional.

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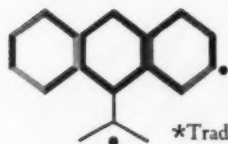
*Kinross-Wright, V.: Postgrad. Med. 16:297 (Oct.) 1954.*

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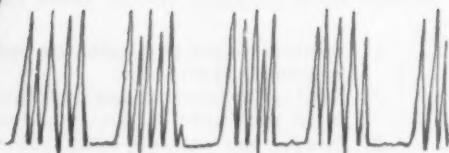
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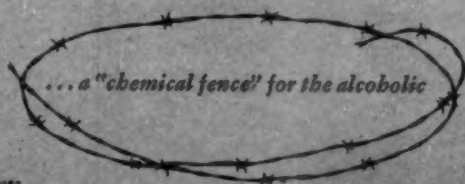
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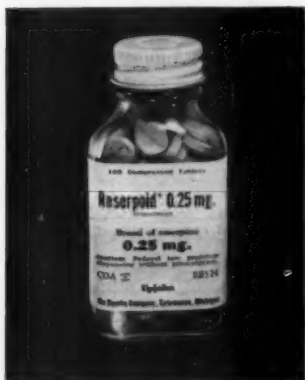
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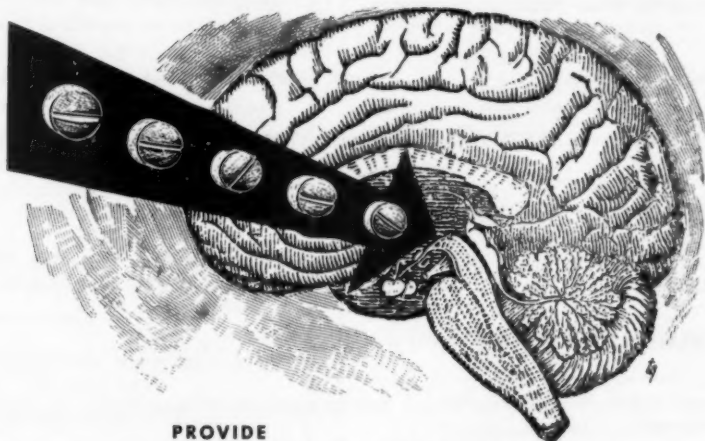
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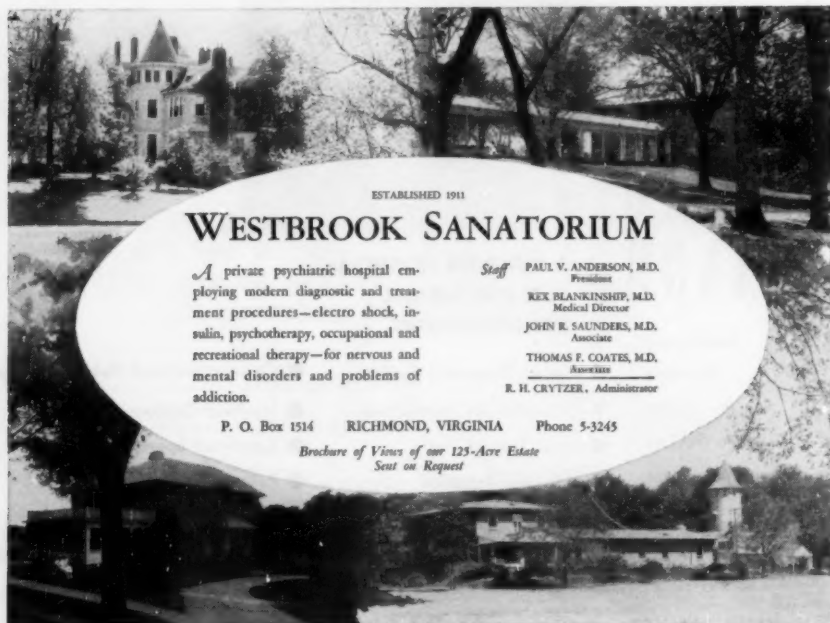
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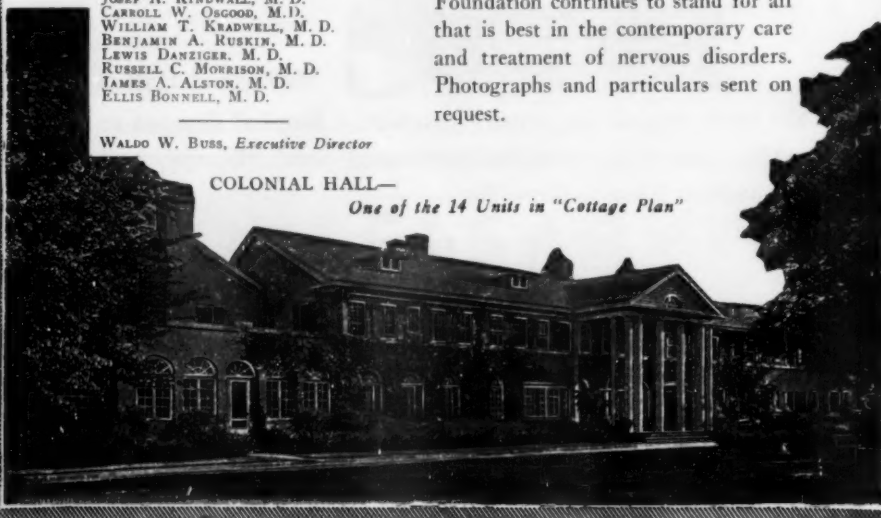
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